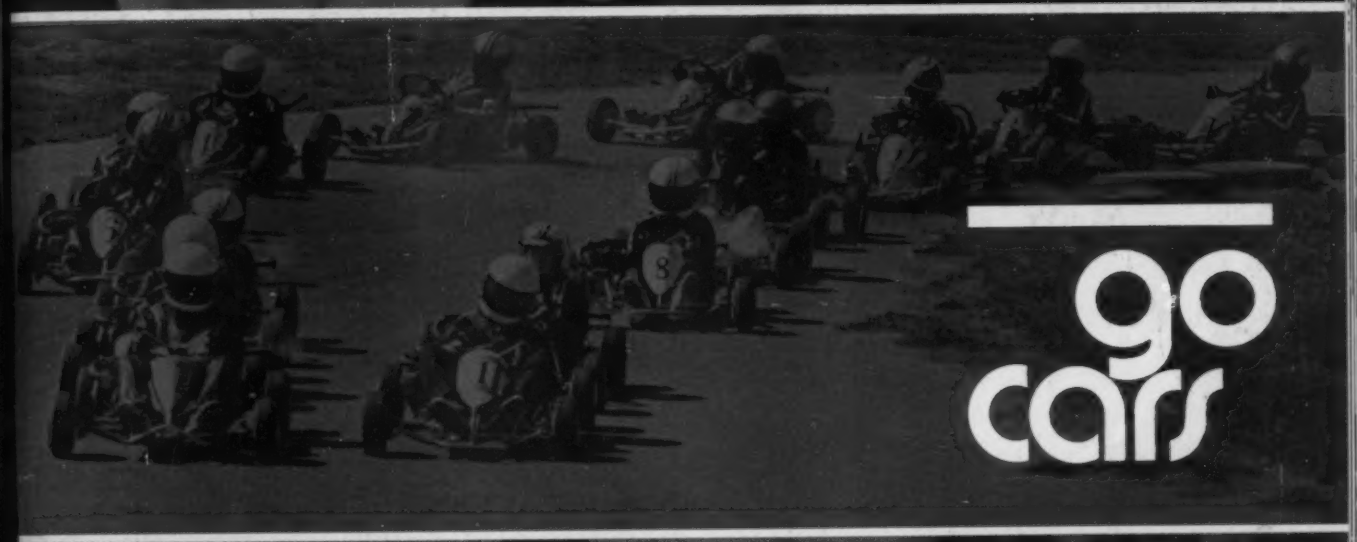
TL
1
.07
b/6

DRIVER

DECEMBER
1972

pro cars

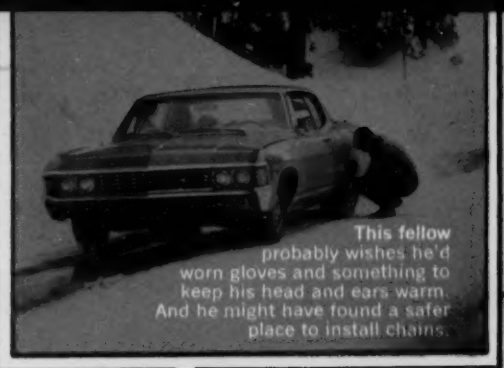


go cars

sno cars

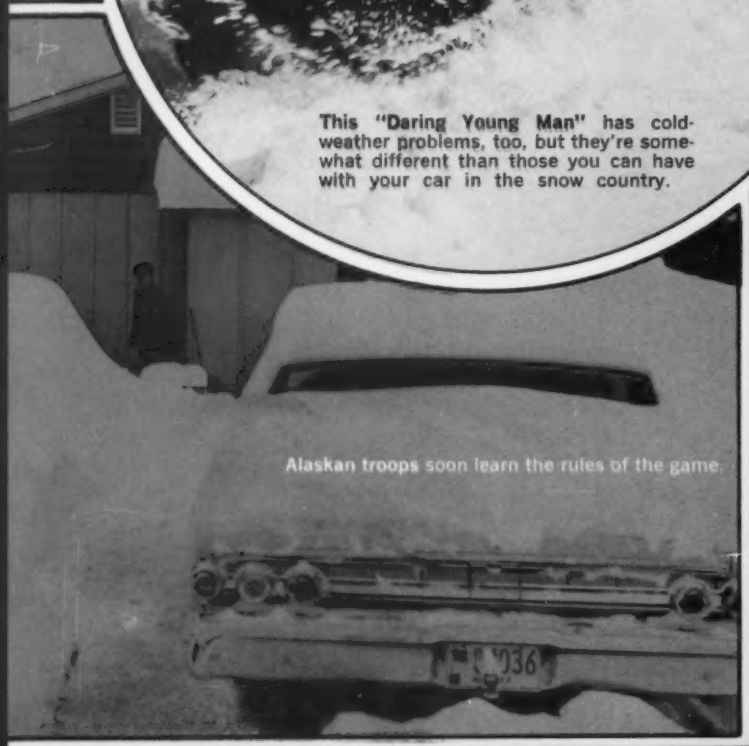
RECEIVED
FEB 20 1973
THE LIBRARY
KANSAS STATE UNIVERSITY

DRIVER



This fellow probably wishes he'd worn gloves and something to keep his head and ears warm. And he might have found a safer place to install chains.

This "Daring Young Man" has cold-weather problems, too, but they're somewhat different than those you can have with your car in the snow country.



Alaskan troops soon learn the rules of the game.

We sounded the warning and offered some pertinent tips on preparing your car for the "ordeal" in DRIVER's October "Winter Is Here . . . So Don't Fight It."

Now that winter is really here, we're offering another round of tips and suggestions for those who still might not have made all the necessary preparations.

Winter can be tolerable—even a tremendous amount of fun at times—IF you get yourself and your wheels ready, and it's not too late (for most) to start right now.

THE AUTOMOBILE

Some vehicles are designed to go in the snow—like those exciting little snowmobiles (perhaps you read about them in "That Daring Young Man . . ." (Nov DRIVER). Others—like your car—aren't. You'll just have to face it. Basically, it's a fair-weather piece of equipment. Oh, it will do a job of sorts when the weather gets nasty, but won't do it as well. Fortunately, there are a number of things you can do to help.

THE ENGINE

Hard engine starts and lots of extra wear after starting will occur unless you put in a lighter-weight oil or use the multi-weight type. Once that's done, change the oil every 1,000 to 1,500 miles. More frequent changes are needed in winter because oil becomes con-

WINTER Is Still Here

taminated with water and gasoline more rapidly. And, of course, you shouldn't race a cold engine or idle it more than is necessary. Also, short drives which don't give the engine a chance to really warm up murder the horses and stack up carbon deposits.

THE FUEL SYSTEM

Gas lines *can* freeze in the more frigid climes. Water vapor in the tank may condense, enter the fuel lines, and freeze; then you're in for a tow job. You can avoid such freeze-ups by using an anti-freeze gasoline or by adding a quality gasoline anti-freeze compound at the rate specified on the container. You can also keep the water-producing condensation down by keeping the gas tank as full as possible.

COOLING SYSTEM

Don't wait and get caught in the great rush to the service stations after that first below-zero morning. Check the cooling system for leaks, have it flushed, and protect it with a rust preventative and antifreeze.

For quick starts in a really frigid area, a circulating or head-bolt heater will keep the coolant warm while your car is parked. A light bulb on an extension cord will do if the temperature doesn't drop too low—but be sure to place wire meshing around it, and don't locate it near the wiring or anything else that could be damaged.

WINDSHIELD WIPERS AND WASHERS

Replace the wiper blades at the first sign of streaking. If your car has a washer, keep the reservoir at least half full . . . and be sure it contains the correct amount of windshield washer antifreeze; other types of antifreeze used in a windshield washer reservoir will only add to your winter woes.

THE BATTERY

Check the warranty on your battery. If it has expired, or the time is drawing near, you'd best trade it in for a new one; even a new battery's performance decreases drastically as the temperature drops.

Have you been maintaining your battery's electrolyte level? If not, and it isn't performing at its best, adding water at this point won't help unless it receives a charge. Charge it, and then test the electrolyte gravity. Each cell should test out between 1.250 and 1.275, and any one cell testing even 1.225 may be too weak to help crank a cold engine.

In either case, if your warranty expiration time is close, or if you find a weak cell after your battery has been filled and re-charged, you'd best get yourself a new winter battery. Installing a new *low-amperage* battery, however, may not solve the problem (remember the battery's reduced efficiency during cold weather). A heavy-duty battery in your car, jumper cables in your trunk, and a home battery charger in your heated garage will carry you through the coldest winter and maintain your good job-attendance record.

Even a good battery won't last long if it isn't being constantly re-charged by the generator or alternator. If the pulley belt is glazed, or too loose, your battery may not be receiving the required maintenance charge. If you can rotate the belt between your thumb and finger more than half a turn, it needs to be tightened. If the belt slips on the pulley when you pull on it, it's probably glazed and should be replaced. There are fan belt preparations available that will improve traction and help prevent glazing, but won't do much for an already glazed belt.

While you're servicing or working on your battery, remember that normal battery chemical action generates hydrogen gas, which is highly explosive when mixed with air. That's the reason for the vent holes in the cell caps. It's also the why of not exposing the battery to an open flame, the glow of a cigarette, or an electrical spark. Also, the chemical used in the electrolyte is sulfuric acid, so don't breathe the fumes or spill any on yourself or your car. It will eat away paint as well as cloth or skin. A pair of safety goggles will keep out the fumes, and will protect your eyes in case of an explosion. (Don't try to charge a totally dead battery, especially in cold weather, or you may get that explosion).

SUSPENSION SYSTEM

Slush and water contaminate and dilute lubricants. So lubricate your car at

continued

Wintertime can be funtime—if you and your car are properly prepared . . . and don't take wet-road curves too fast.

DRIVER

THE
TRAFFIC SAFETY MAGAZINE
FOR THE
MILITARY DRIVER

Col R. J. BROUGHTON, Jr
Chief, Safety Education Division

Capt TOBIAS van ROSSUM DAUM
Editor

A1C BOB KAYS
Technical Editor

BOB LOWE
Editorial Ass't

DON KELLEHER
Art Director

TSgt HANK KRUEGER
Staff Artist

MSgt MIKE KEEFE
Staff Photographer

DEPARTMENT OF THE AIR FORCE

Hq Air Force
Inspection and Safety Center
Norton Air Force Base, California 92409

Lt Gen LOUIS L. WILSON, Jr
The Inspector General, USAF

Maj Gen ERNEST C. HARDIN, Jr
Commander, Air Force Inspection and Safety Center

Brig Gen ROBIN OLDS
Director of Aerospace Safety

PUBLISHED IN COOPERATION WITH THE DEPARTMENT OF THE NAVY

RADM W. S. NELSON
Commander, Naval Safety Center

DECEMBER 1972 VOLUME 6 NUMBER 6

CONTENTS

FEATURES — PAGE

Winter Is Still Here — Inside Front Cover
It's Good for Your Head — 6
Keeping Out of Trouble—With an Emergency Tool Kit — 8
Just for the Fun of It — 14
Give Your Car a Clean Bill-of-Health — 22
Intelligent Motorcycling — 26

DEPARTMENTS

Double Clutch — 2
The Law and the Automobile — 4
Miss DRIVER — 5
Pro Talk — 10
How Goes It? — 13
Motorsports Club News — 18
Backfire — 28
Tuneup — 29
What Should You Do? — Back Cover

AFRP 127-1

SUBSCRIPTION. DRIVER is available on subscription for $2.00 per year domestic; 50c additional for foreign mailing, 20c per copy, through the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Changes in subscription mailings should be sent to the above address. Single copies will be sold and back copies will be furnished when available. Use of funds for printing this publication has been approved by Headquarters, United States Air Force, Department of Defense, Washington, D.C. No payment can be made for manuscripts submitted for publication. Contributions are welcomed, as are comments and criticism. Address all correspondence to the Editor, DRIVER Magazine, AFISC/SEDD, Norton AFB CA 92409. ATTENTION DEPT OF THE NAVY PERSONNEL: Address all queries concerning distribution to NAVSAFECEN, NAS, NORFOLK, VA 23511, Attn: Safety Education Dept. All other correspondence will be welcomed by the Editor. The contents of this magazine are informative and should not be construed as regulations, technical orders, or directives unless stated. Address reprint requests, stating intended use of material, to the Editor. The Editor reserves the right to make any editorial changes in manuscripts which he believes will improve the material without altering the intended meaning.

THE EDITOR SPEAKS

DOUBLE CLUTCH

A Pat on the Back for DRIVER and Readers.

Mr. Howard Pyle, President of the National Safety Council, sent the Air Force Inspection and Safety Center a copy of the talk he made at the 24th Annual Presentation of the Alfred P. Sloan Awards for Highway Safety.

The talk was rather long, and dealt mostly with governmental aspects of the safety program, but we thought our readers would be interested in the following excerpts related directly to them, especially the last paragraph concerning our "associates" (DRIVER readers).

It was at this presentation meeting that DRIVER magazine received the coveted Alfred P. Sloan Award for Distinguished Public Safety, sponsored by the Highway Users Federation, for the second straight year (see Aug '71 DRIVER). The presentation was made by National Safety Council President Pyle, who has thrice presented the Council's top award in that same class to DRIVER for distinguished service to accident prevention. Therefore, along with the excerpts of his talk, we would also like to share the closing statement in President Pyle's letter with our "associates"—you people in the field who read and heed, as well as those of you who have made "distinguished" written contributions to DRIVER through the years.

Closing statement, Pres. Pyle's letter:

"Some very talented people and great organizations have earned Sloan Awards. Congratulations for having joined this distinguished group."

Excerpts from Pres. Pyle's talk:

". . . In my judgment no single force has concentrated more continuous attention on highway accident losses than the mass media. In every possible way—by daily reporting and through countless innovative approaches to the problem—the entire mass communications industry has been a tireless advocate in behalf of more safety on the nation's highways.

". . . The central problem of social psychology has always been a matter of attitude—a built-in, inherent

continued on page 21

each oil change—or follow instructions in your owner's manual concerning winter lubrication.

TIRES

Snow treads improve traction on loosely packed snow, but are not as effective as ordinary tires in stopping on glare ice. On some types of ice, studded snow tires provide more starting and stopping traction but won't match the dry-road figures often shown in advertisements. And, snow tries are not as safe as conventional tires for sustained dry-road driving.

The depth of the stud holes molded into snow treads is carefully matched to the length of the studs. Rubber wearing away and treads filling up with dirt and grit after only a few miles disrupt the precise relationship.

Other drawbacks include having to change tires when you have some extended driving to do on clear pavement, or if you drive into a state that forbids studded tires during specified periods or any time of the year (see Fig. 1).

Chains give better traction than snow tires on snow and in mud and slush, and greatly reduce stopping distance on ice. But they reduce ground pressure and give the car a tendency to skid—particularly on curves.

Actually, for most winter driving, regular treads will get you by. But keep a set of reinforced tire chains in your trunk for the really bad driving conditions . . . and be sure the chains fit your tires!

THE BODY

Your car needs to be washed often in wintertime. Be sure the chrome strip seams and the car's underside get thoroughly rinsed to remove salt and corrosion-producing film. Protect the outside metal surfaces with a wax job, and delay weathering effects by applying a preservative compound to vinyl and composition tops.

WINTER DRIVING

To survive, you'll have to give quite a bit more attention to both your driving and that of the other guy. And, of course, you'll have to dress more warmly, including gloves. Even if the car's heater is in top working order—you may have to get out and change a tire or install chains. Now you're ready to go. That is, after you've adjusted and cleaned your mirrors, made sure your windshield, windows, lights, and signal lenses are clear. Did you know that flipping down the visors to within an inch or so from the windshield will help keep it clear? The warm air from your defroster is thus deflected and does double duty.

Fig. 1 STUDDED TIRE dates

With the first blast of winter weather, thousands of motorists made the changeover to winter tires on their cars. Many of those are studded tires which have specified time-use limits in 26 states. The studded tires are illegal in **Utah, Mississippi, Louisiana** and **Hawaii**, and may be used on **Minnesota** highways only by out-of-state drivers coming from states where studded tires are legal. In all other states not mentioned below, and in the District of Columbia, there were no restrictions on the use of studded tires as of 25 Oct 72.

Alaska	15 Sept-15 May
Arizona	1 Oct-1 May
Arkansas	15 Nov-15 Mar
California	1 Oct-1 May
Connecticut	15 Oct-30 Apr
Delaware	15 Oct-15 Apr
Idaho	1 Oct-15 Apr
Illinois	1 Oct-1 May
Indiana	1 Oct-1 May
Iowa	1 Nov-1 Apr
Kansas	1 Nov-15 Apr
Maryland	15 Oct-30 Apr
Massachusetts	1 Nov-1 May
Michigan	1 Nov-1 May
Montana	1 Oct-31 May
Nebraska	1 Oct-15 Apr
New Jersey	15 Nov-1 Apr
New York	16 Oct-30 Apr
North Dakota	15 Oct-15 Apr
Oklahoma	1 Nov-1 Apr
Oregon	1 Nov-30 Apr
Rhode Island	31 Oct-1 Apr
Virginia	1 Nov-1 Apr
Washington	1 Nov-1 Apr
West Virginia	1 Nov-15 Apr
Wisconsin	15 Nov-1 Apr

Information extracted from Tire Industry Safety Council News

continued

WINTER IS STILL HERE

If you want to avoid ending it all by inhaling carbon monoxide, keep two vent windows partially open. Better still, crack a vent window and one side window. This will also help keep the inside glass from fogging up. If you open only one window, the vacuum thus created can draw carbon monoxide through a leaky trunk or cracks in the floor. And, even a top-notch exhaust system can cause trouble while you're parked with the engine running.

Go light on the gas pedal; spinning wheels will generate heat enough to melt the snow, and you'll have even less traction. If it's very slippery, try starting off in second (stick) or "Drive" (automatic).

Give yourself lots of space ahead. It takes from 3 to 12 times longer to stop, depending on how slick the road surface is, tire condition, driving ability, and other considerations. Slow down well ahead of intersections and possible stops. Start braking early, or you'll find out just how much heavy traffic really polishes ice and snow.

Pump your brakes when the going gets slippery. This will give you more positive steering control while coming to a stop. Gearing down is fine, but *be careful;* selecting too low a gear or gearing down from too fast a speed will throw you into a skid.

If you must drive in the hills, get up enough momentum to carry you to the top of a hill, and ease off at the crest . . . you won't know what hairy situation awaits you on the other side.

Keep a sharp lookout ahead; let your car roll through the icy spots that linger in shady places, and on bridges and overpasses, and slow down B-E-F-O-R-E you attempt to negotiate a curve. Curves on slick roads just won't accommodate a fast-moving car.

If your car does go into a skid, turn the steering wheel in the direction the rear end is skidding. Braking won't help a bit if the car is moving sideways. Straighten the car first; then, if you must stop, pump the brakes.

So, you see, wintertime can be fun-time, but only if you develop a lot of skill and use a large amount of common sense. Have fun. ●

the LAW and the AUTOMOBILE

CAR POOLS

To reduce transportation costs (and hopefully, air pollution), drivers frequently join car pools and drive to work on alternate days or otherwise share the cost of the ride. It is also quite common for military people to advertise for riders to accompany them on long trips. The passengers may pay for all or part of the gasoline and oil used by the driver. On the other hand, the passengers may pay a fixed amount not related to the operating expense of the car —such as the cost of a trip ticket.

There are many payment plans, ranging from an agreement to pay before the trip begins to a voluntary contribution by the passenger when the journey ends. The important point is that if payments are involved they may have a decided impact on the driver's insurance coverage.

Some states have laws known as "guest" statutes. These laws have the ultimate effect of relieving the driver or owner of the automobile from liability for injuries to passengers transported free of charge. This is true in cases not involving gross negligence. Under these same statutes, *paying* passengers are *not* guests, and need show only ordinary negligence to recover damages in a personal injury suit against the driver. Thus, in those states which have guest laws, the driver "owes" a higher duty of care to a paying passenger than he does to a guest. Whether payment is received becomes the decisive point.

When payment changes the status of the automobile occupant from "guest" to "paying passenger," it also increases the risk of the driver's insurance company. Because of this, many automobile liability policies contain clauses exempting the insurance company from liability if the insured vehicle is used to carry passengers for a "charge," "hire," "compensation," or "payment." Insurance companies take the position that when a passenger pays the driver, the driver's potential liability is multiplied because of the effect of guest laws. Thus, if it were not for an exemption clause, the insurance company would be saddled with an additional risk. The companies also believe that if the policy holder desires coverage for such risks, he has the option of securing a special policy.

The "guest" statutes are by no means uniform. For example, in one state an automobile occupant may be considered a "passenger for hire" by merely agreeing with the driver (before the trip) to contribute money, as opposed to later making a voluntary contribution without being asked to do so by the driver.

Insurance companies realize that in many "car-pool" and "ride-sharing" arrangements, the passenger will pay money to the driver. Some companies do not invoke the exclusionary clause where payment is made on a "share expenses" basis. But if the driver makes an "unreasonable profit," generally speaking, all companies will invoke the exclusionary clause.

The practices discussed above are not binding on any insurance company. If a company so elects, the exclusionary clause in your policy may be invoked even in "share-expense" type arrangements. In such a case, you might be forced to seek legal advice to determine your rights under the policy.

WHAT TO DO ABOUT IT

Since the law is unsettled in this field, "car-pool" drivers and those who otherwise permit riders should either refuse payment of any kind or get in touch with their agents to obtain an amendment to their insurance policies.

PLEAD GUILTY?

Drivers who appear in criminal court because of traffic citations arising out of motor vehicle accidents often discover soon thereafter that they are being sued in civil court. A key consideration in deciding whether to plead guilty to a traffic charge (and thereby avoid the expense and time-consuming details involved in a trial) is the extent to which the plea may tend to establish the driver's negligence in the follow-on civil suit. For this reason, he should seek legal advice prior to entering his plea concerning the traffic offense.

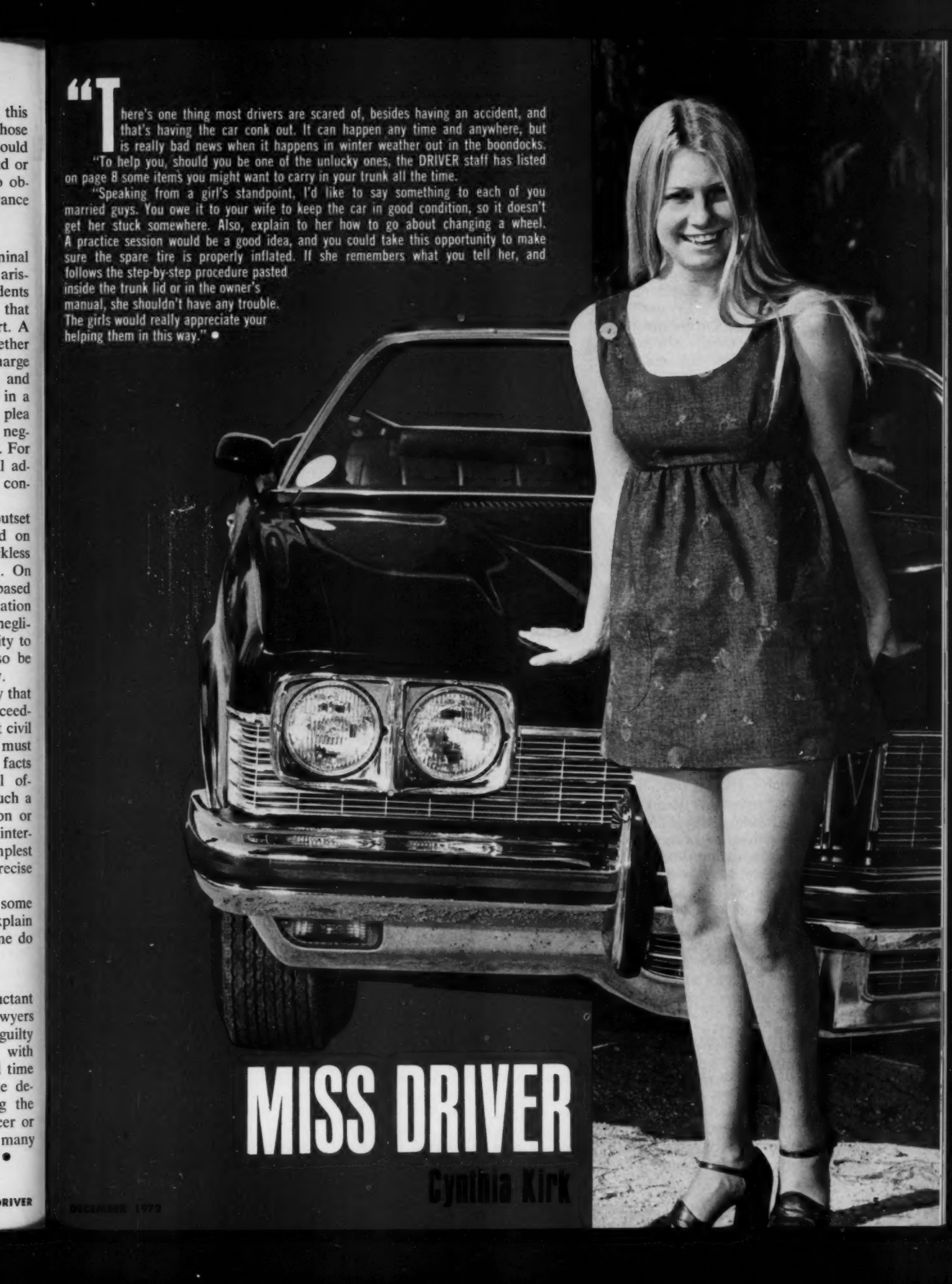
It should be noted at the outset that a *criminal charge* is based on specific violation (speeding, reckless driving, improper passing, etc). On the other hand, *civil action* is based on common law negligence. Violation of a criminal statute may be negligence per se; but for civil liability to result, such negligence must also be the cause of the damage or injury.

The courts have held generally that a plea of guilty in a criminal proceeding is admissible in a subsequent civil action (however, the civil action must arise out of the same set of facts which constituted the criminal offense). The reasoning is that such a record is a deliberate declaration or admission against the person's interest of the fact in issue. In the simplest terms, it is a confession of the precise matter charged in the civil suit.

In a follow-on civil action, some courts permit the driver to explain his original guilty plea, and some do not.

FOLLOW YOUR LAWYER'S ADVICE

Some motorists are often reluctant to follow the advice of their lawyers who advise them to plead not guilty to traffic violations. However, with the great amount of money and time which may be involved in the defense of a civil suit, following the timely advice of your legal officer or civilian lawyer *can* save you many headaches . . . and money, too. ●



"There's one thing most drivers are scared of, besides having an accident, and that's having the car conk out. It can happen any time and anywhere, but is really bad news when it happens in winter weather out in the boondocks.

"To help you, should you be one of the unlucky ones, the DRIVER staff has listed on page 8 some items you might want to carry in your trunk all the time.

"Speaking from a girl's standpoint, I'd like to say something to each of you married guys. You owe it to your wife to keep the car in good condition, so it doesn't get her stuck somewhere. Also, explain to her how to go about changing a wheel. A practice session would be a good idea, and you could take this opportunity to make sure the spare tire is properly inflated. If she remembers what you tell her, and follows the step-by-step procedure pasted inside the trunk lid or in the owner's manual, she shouldn't have any trouble. The girls would really appreciate your helping them in this way." •

MISS DRIVER

Cynthia Kirk

Adapted from an article by Al Morse (Reprinted courtesy CYCLE NEWS)

it's good for your h

A total of 44 states have compulsory helmet laws. The result is a mixture of feeling among motorcyclists on the subject. Some riders resent wearing helmets at all. Others would wear them if there were not a law forcing them to do so. Still others welcome the requirement. But, freedom of choice arguments aside, some pretty impressive figures have been racked up by states with compulsory helmet laws in effect.

First of all, 90 percent of all fatalities resulting from motorcycle accidents are from head injuries. And in New York State—one of the first states to have a compulsory helmet law—fatalities have been reduced as much as 48 percent since the enactment of the law in 1967. Guys are riding today who might have been fatalities or suffered irreparable brain damage if it weren't for the helmet laws.

So it helps a lot to wear a helmet, whether you want to or have to. If you break a leg in an accident, it will rebuild itself with a little medical help. But damaged brain cells do not rebuild themselves (see p. 12, Nov '72 DRIVER).

Full-coverage helmets, first used for competition, are now popular for street riding. These helmets provide increased protection, and visibility is as good as with conventional helmet styles. Patches of reflectorized tape on all sides of the helmet help other motorists see you coming and going.

This older helmet carries the Z90.1 and American Motorcycle Association (AMA) approval stickers. But, look for the Safety Helmet Council of America (SHCA) sticker when purchasing a new helmet. This sticker assures you the helmet meets required standards, including those for AMA competition.

WATCH OUT FOR "BARGAIN" HELMETS

In states with helmet laws, a lot of guys who resent wearing helmets go out and buy the cheapest one possible . . . just to satisfy the requirement. This is dumb. As long as you have to wear a helmet, you should wear a good one made by a reputable manufacturer. Good helmets are available for as low as $20. But if somebody tries to lay one on you for $10 or less, you know something's got to be wrong with it.

TYPES OF HELMET MATERIAL

You have two types of excellent shell materials to choose from—fiberglass or polycarbonate. Both types can meet and exceed American National Standards Institute's Z90.1 specification. Both are acceptable in all states having compulsory helmet laws. Polycarbonate helmets, however, are usually 20 percent lighter than fiberglass, which makes a difference when it comes to less fatigue and neck strain. *(See important note, page 7)

HELMET CERTIFICATION

The Safety Helmet Council of America (SHCA) is made up of a group of manufacturers who make 80 percent of the helmets sold. The group, through its Certification Committee, pays independent laboratories around the country to buy helmets off dealers' shelves for testing. These include Dayton T. Brown, Approved Engineering Testing Labs, and Underwriters Laboratories. Any helmet that fails to meet the Z90 standard is decertified and cannot carry the SHCA sticker. The Safety Helmet Council of America label is the only sticker presently accepted by the American Motorcycle Association for both amateur and professional racing. If you don't have SHCA on your helmet, you can't race. Street riders would be wise to demand the same requirement for their helmets.

HOW LONG DOES A HELMET LAST?

One thing people in the industry don't yet know too much about is the durability of helmet components, including the effects of sun, perspiration, hair oil, and just time and wear-and-tear. But it's generally accepted that a helmet may lose much of its protective capability with use and abuse. There's no big problem with the shell, but other components such as the straps, liner, rivets, etc, are subject to deterioration. The problem here is that you don't know how good an old helmet is until you need its protection . . . and then it's too late.

Some experts recommend dumping a helmet after 2 years or so of normal use. And, to be on the safe side, some even recommend discarding the helmet after only 1 year if it is used a lot, especially by a racer. The Z90 Committee recently set up a special sub-committee charged with buying and testing used helmets, and a parallel study is being done for the Federal Government. So, sometime in 1973, we should know something about the

HEAD

How to buy and use a helmet

effects of use and environmental conditions on various helmet components.

PAINT SOLVENTS RUIN HELMETS

Take reasonable care of your helmet, and know what can damage it. Many chemicals have an adverse effect on various helmet components. One harmful chemical is the solvent in some types of spray paint. If you choose to personalize your helmet by painting it, use only a paint recommended by the manufacturer. Read the warning notice inside your new helmet.

Something else to keep away from your helmet is gasoline. The impact-absorbing liner is made of styrofoam, and gasoline and other petroleum products will melt it on contact. In fact, gasoline will liquify styrofoam almost instantly, and even gasoline fumes will do a job on it.

** note*

After this article went to press, the following information was released by the Department of Transportation (DOT).

Of 54 different helmet brands recently tested for the Federal Government, nearly 90 percent failed to meet the 1966 National Standards Institute (Z90) specifications. The test results are not regarded as conclusive at this point by DOT, which is in the process of retesting helmets in larger quantities to provide conclusive evidence of performance.

If you need a new helmet, DRIVER suggests you go with a popular brand fiberglass (not polycarbonate) helmet which carries the 1972 SNELL FOUNDATION certification. Buy only from a reputable dealer and, most preferably, get a helmet which has not been removed from its original container. If possible, it would be advisable to wait before replacing your present helmet until further tests are completed. DRIVER will keep you posted on further developments concerning this matter.

LINER GOOD FOR ONE IMPACT ONLY

An important point about the liner: styrofoam absorbs the energy of a shock by deforming. It is not resilient and will not bounce back to its original shape after an impact; once dented it has permanently lost some of its capacity to absorb an impact. We've all seen some cyclists wearing bashed and scarred helmets as a sort of "badge of courage." A friend of mine, in fact, wears a battered old pot because he considers it his lucky helmet. "It saved my life back in 1968," he states proudly. But what he doesn't realize is that it might not be up to saving his life in 1973.

If you own a helmet that has suffered a substantial impact, either throw it out or send it back to the manufacturer for refurbishing. The reputable manufacturers offer this service for a reasonable charge. And don't just go by the way the outside shell looks. The shell may look fine, but the liner inside could be damaged.

A NEW FEDERAL STANDARD COMING

The Z90.1, by the way, is the standard on which most state laws are based. It is, however, only a recommendation . . . not a law; the individual states presently enforce their own separate laws. However, while the states have been running the helmet show since 1967, a proposed Federal Standard will be based on the Z90. The difference will be that all firms making helmets for use in the U.S. will have to follow the Federal Standard. Just as with tires, helmets will have to come up to certain standards or the Federal Government will come down on the manufacturer.

The reputable manufacturers welcome the upcoming Federal Standard with open arms. They feel that the new law will get the bad helmets off the market; that a few bad "eggshells" have been giving the industry a bad name.

Meanwhile, if you really want to be sure you're buying a good helmet, look for an "SHCA" sticker inside, certifying that the helmet meets or exceeds Z90 requirements.

So that's the helmet story in brief. Buy a good helmet, take care of it, and have it refurbished or replace it periodically. It could mean your survival. ●

keeping out of trouble... with an EMERGENCY TOOL KIT

A lot of people have car trouble on the road.* Most of these problems can be prevented—and carrying a few basic items in the trunk can keep road problems from becoming serious emergencies.

For instance, having a spare and the wrench to replace a broken fan belt can save you the cost of a tow job and service. It might also prevent your becoming stranded in a hot desert, or on an untraveled mountain road in freezing weather.

While proper day-to-day checks and timely maintenance will reduce the probability of most vehicle breakdowns, the wise driver prepares for such common events as a broken fan belt or hose, overheated engine, electrical and ignition failures, clogged fuel line, and other emergencies.

You can't carry a complete supply of auto parts and tools in your trunk, but you can and should carry a reasonable amount and variety of emergency items.

The spare parts, tools, supplies, equipment, and emergency procedures listed here will help resolve many problems commonly encountered on the road. The lists are neither all-encompassing nor minimal; DRIVER merely recommends using them as guides in deciding what items you feel would best suit your needs during various seasons and circumstances. Make a check list and keep it in the glove compartment, and make periodic inventories in order to keep your "emergency kit" seasonally current and replenished. Also, as Miss DRIVER suggests (page 5), instruct your wife and/or others who drive your car in the use of the tools, equipment, and emergency procedures.

SPARE PARTS

Fan Belt Broken fan belts frequently cause breakdowns. A broken air conditioner/power steering belt can wait until you get to a service station for replacement, but the generator/alternator-fan belt is critical.

Radiator and Heater Hose Just in case you have not changed hoses often enough to prevent failure, carry a universal flexible radiator hose that can be used either on the top or bottom (available for many cars); also a length of heater hose, and clamps to fit both. Plastic electrical tape can be wrapped around small holes in hoses and sealed with a hose clamp to slow a leak until you get to a service station.

Ignition Parts Broken rotors, burned points, and cracked distributor caps are some of the weird things that can stall a car on the road. Next time you have a tuneup, keep the replaced ignition parts, if still usable, or carry a spare tuneup kit. A couple of spare spark plugs can be important in case of a wet, fouled, or broken plug .

Gas Filter Clogged fuel systems also cause frequent breakdowns . . . a tank of dirty gas can plug a fuel filter in a hurry. Change the filter regularly, but also carry a spare . . . just in case.

EQUIPMENT AND SUPPLIES

First Aid Kit (which includes a mouth-to-mouth resuscitator)

Flares

Car jack, wheel chocks, and tire pump*

Fire extinguisher

Tire chains (seasonal)

Blanket (preferably fireproofed)

Water A gallon or two of water in clean containers to be used in the event of loss of radiator or battery fluid, overheated engine, or for emergency personal use.

Battery Booster Cables Jumper cables can come in handy, provided they are the heavy-duty type and you know how to use them safely. See "A Little Care Will Do It," Mar '72 DRIVER for the correct procedure.

Fuses Electrical failures are not uncommon. A good selection of fuses will get you out of a bad spot, but be sure to check the terminal block so you know which fuses go where.

Flashlight A large lamp with a red warning beacon is the most useful. Keep a live battery in it and carry a spare bulb.

Gasoline Can Gasoline cans are usually carried empty—but carrying a filled can is sometimes warranted. Gasoline should be carried only in an approved metal can, well sealed and supported in the trunk. Never fill the can all the way; expanding gasoline could break a seam and cause a fire or other damage.

Oil A quart or two of oil could be essential, especially if you discover you have an oil leak in the middle of a desert at 120 degrees.

Wire and Tape Several feet of insulated wire might be just the thing for making electrical repairs or securing a loose muffler or tail pipe. A small roll of metal tie-wire is also good for on-the-spot repairs. And, don't forget a roll of electrical tape.

Wiper Blade Wiper blades, as with all components, should be checked often

** In the June '69 issue, DRIVER reported that in 1967 71.5 million motorists suffered mechanical breakdowns. Of these, 43% were due to battery and electrical problems, 20% were caused by tire trouble, and 3% were due to fuel system problems, and some 2.8 million people ran out of gas. We don't have current statistics; but, if at least that many breakdowns have been reported each year since, we've had nearly 358 million cars stranded on our roads.*

** An air hose with female connections on each end (available for a dollar or so) will enable you to take enough air from your other tires to inflate a low one so you can drive to a service station. Or, a hose with an air pump that screws into a spark plug hole can save you a lot of manual pumping. Emergency aerosol inflation cans are also handy and stored easily.*

A rather complete assortment of emergency equipment, as pictured below, can be economically assembled and easily stored. The smaller items such as fuses and ignition parts should be kept in the glove compartment or similar location where they are easily accessible. The larger items can be wrapped in a fireproof blanket and packed in a corner of the trunk.
(Editor's note: The product names shown do not represent an endorsement by DRIVER.)
Equipment for photos courtesy Jerry's TEXACO, San Bernardino, Calif.

enough that you don't need a spare. But you should carry one . . . just in case. Be sure you know how to remove and install the blade.

Small File or Sandpaper A point file or small section of fine sandpaper to clean burnt points or fouled plugs might keep you from being stranded.

TOOLS

You'll need a supply of tools to deal with mechanical problems on the road. For a long trip you might want to pack your entire tool kit; but an assortment of basic tools takes less space. DRIVER suggests:

- Adjustable wrenches—Small and medium-sized crescents.
- Screwdrivers—Assortment of various sizes and types, including medium-sized flat-head and phillips-head.
- Vise grips and pliers.
- Feeler gages.
- Spark plug wrench.

COMMON CAR PROBLEMS AND CURES

Overheating Stop in the shade, leave the engine running, and visually check the hoses and fan belt. If the hoses are not leaking and the fan belt appears to be tight enough, run the engine at a fast idle for about 15 minutes. If this doesn't reduce the engine temperature, shut the engine off and carefully release the steam pressure using the tab on the radiator cap. Then cover the cap with a cloth and slowly remove it. Restart the engine and fill the radiator with water; then drive slowly to a service station.

Wet Ignition Wet spark plugs and cables short out, causing the engine to stall. Wipe all spark plugs as well as the top of the ignition coil with a dry rag. If the engine fails to start, remove the distributor cap and dry the points and the inside of the cap.* Also, if you haven't water-proofed the battery terminals and clamps with petroleum jelly, they may need to be dried.

Clogged Fuel System Dirt in the fuel line or trapped in the gas filter can stall an engine or cause very rough operation. Remove the air filter and hold your palm over the carburetor while someone operates the starter. (You can also use a remote starter or lay a screwdriver blade across the battery relay connections.) This may unplug the fuel line. If gas still doesn't flow, check the gas filter. If the fuel filter is fouled, replace it with your spare after the engine has cooled, to prevent fire. If gas still doesn't come through the line, you probably have a faulty fuel pump.

Vapor Lock Vapor locks are not common today, but still occur in extreme heat; especially after the gas tank has been overfilled (in hot weather have the attendant stop short of filling the tank all the way to the cap). Vaporized gasoline blocks the fuel line and stalls the engine. If possible, stop in a shady place and put a wet rag on the fuel pump and fuel line to cool and condense the vaporized fuel.

Electrical Failure A car may stall or fail to start because of a bad electrical connection, a shorted circuit, or blown fuse. The most common problem is a loose or heavily corroded battery cable. Clean the battery cable, and ground wire, and tighten the clamps. Then check all electrical connections. If the car still won't start, check the fuses. If all fuses are good, and you still don't have any juice, there is probably a short somewhere in a circuit. To prepare yourself for this possibility, read "Simple System to Segregate Shorts," June '72 DRIVER.

Broken Fan Belt If you don't have a spare belt, you're in trouble. Walk or hitch a ride to the nearest phone or service area. An automobile club card will help here.

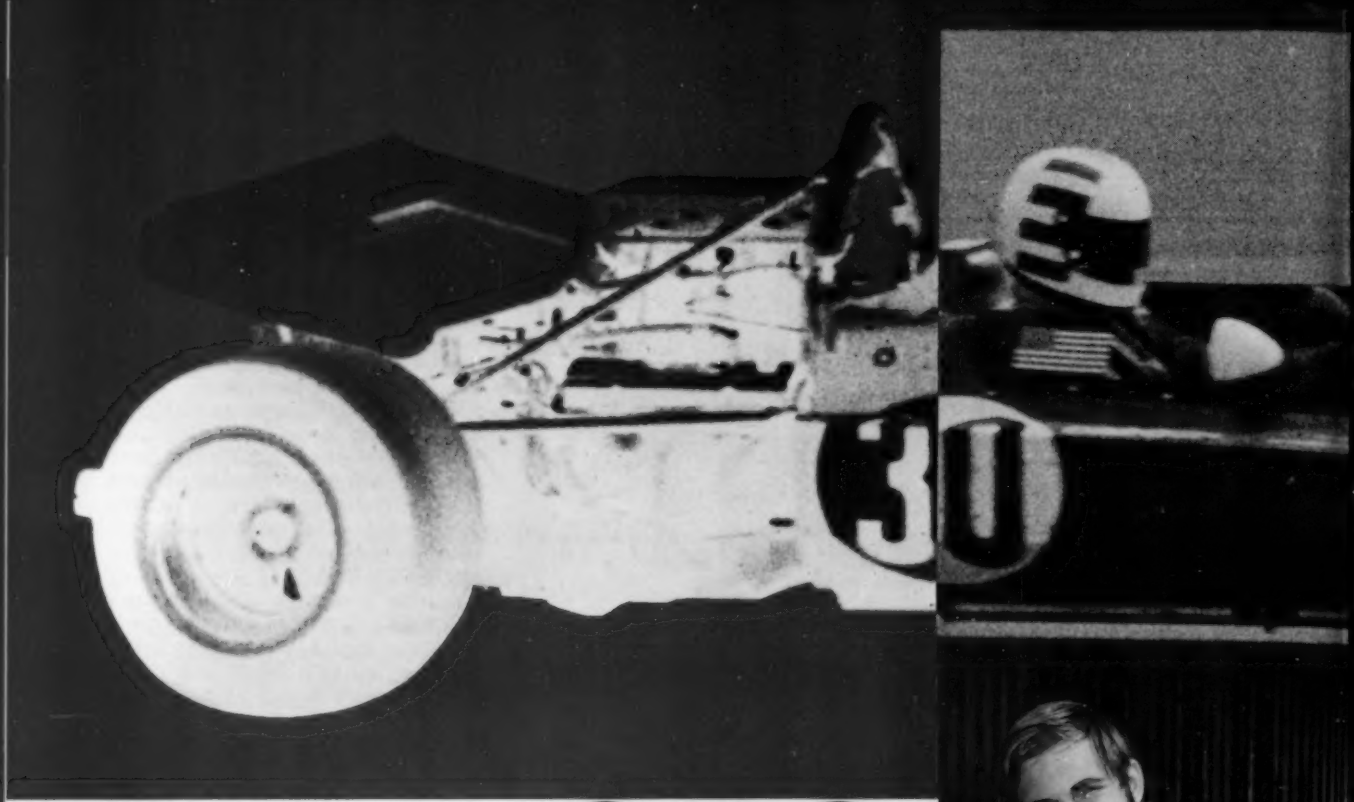
EMPTY FUEL TANK

This is the most preventable breakdown of all. For long trips through remote areas, it is a good idea to fill up before the gage flirts with empty; also carry a can of gasoline (be sure to take the previously mentioned precautions). If you have to feed an empty tank from a can, you'll probably have to hold a bit of gas back for priming the carburetor. After priming the carb, be sure to replace the air filter cover to prevent a fire or explosion. Fire prevention is one of the purposes of the filter cover.

If your car fails to respond to these routine checks and procedures, you may have serious problems or a radical misadjustment in the ignition or fuel system. If you use the carburetion instructions and trouble-shooting guide contained in "Complete Ignition Tuneup," Aug '72 DRIVER, you might still avoid a tow and repair job. But, keeping your car in top shape by visiting your base auto hobby shop or favorite garage regularly, or perhaps spending a few dollars for a checkout at one of the better automotive diagnostic centers,* will lessen the possibilities of becoming stranded.

* *See page 22 this issue.*

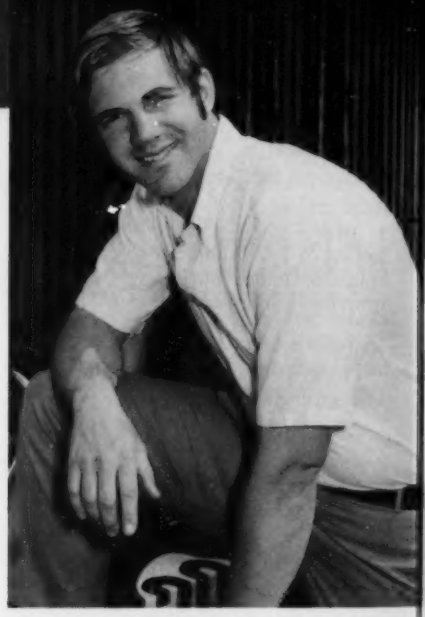
* *You might carry a drying compound, available in spray cans at parts stores.*



pro talk

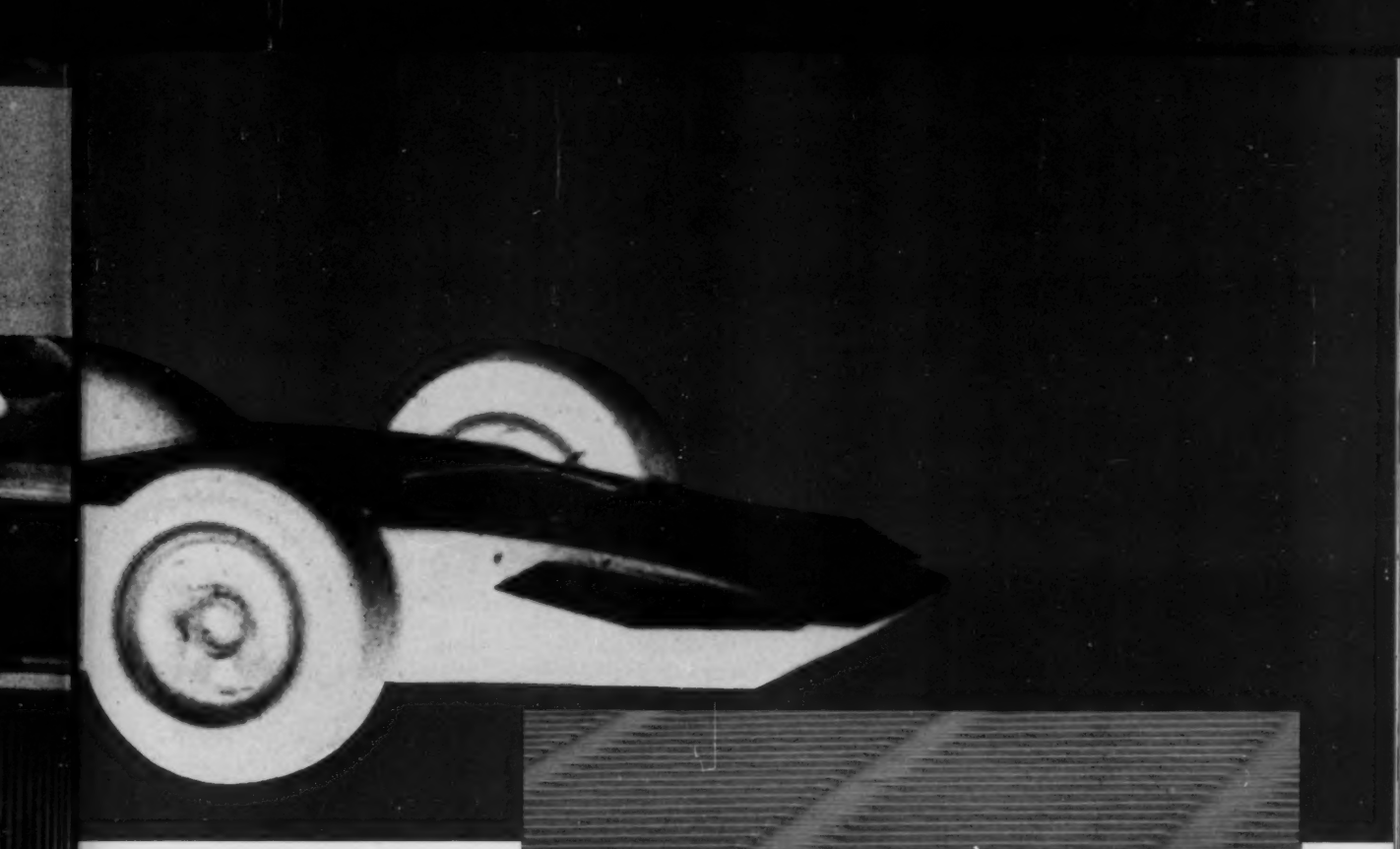
A lively interview with Sam Posey, ambitious young man of the automobile racing world

by Lt Col JEROME GOODRICH



Sam Posey: Started racing as an amateur in 1965. Caused sensation in 1966 by outqualifying John Surtees and Jim Hall at the Mosport Can Am. Was named "Rookie of the Year" at the Nassau Speed Weeks in the same year. Competed in the Can Am Series during 1967/68; placed second in the Grand Prix of Japan in 1968. Finished fourth in the point standings of the 1970 Trans-Am series. A top long-distance driver, he finished fourth at the Daytona 24-Hours and the 24-Hours of Le Mans of 1970. Hometown: Sharon, Connecticut.

Always on the lookout for driving experts with savvy words on our favorite subject, DRIVER cornered a bright young man named Sam Posey between practice runs for a Formula 1-Formula A contest at the Ontario Motor Speedway, Ontario, California. The result was this informative interview. While modesty may not be one of his virtues, Sam left no doubt that he knew what he was talking about.



Sam Posey and his Formula A racer "scream" down the straightaway on Ontario's 3.2-mile road course during qualifying run for Formula 1 - Formula A contest.

DRIVER: *Sam, you're just 27, but have already made quite a name for yourself in automobile racing. How did this come about?*

POSEY: My interest in racing began when I was about 12. In the years before I turned 21 and could start racing legally, I observed and learned a great deal about the sport. Then, within 10 months of my first race, I went to Le Mans . . . 4 months later I did my first Can Am. I was very ambitious early on and this paid off; because, without a doubt, I am now the most experienced racing driver in the United States. I find myself roughly the equal of Revson and Donohue who are, you know, 8 years older than I am.

DRIVER: *Some racing drivers believe that the techniques used by racers on the track could help the average motorist be a better driver on the highway. Are there techniques that can be related?*

POSEY: Certainly the technique of anticipation, or thinking ahead, is at least as important to the highway driver as it is for those of us who race automobiles. I'm proud to say that I've never had a crash on the highway, and I drive more than 80 thousand miles a year—often through areas and towns I've never seen before. And driving through strange places while you're looking for road signs, et cetera, can be very tricky. I feel it's largely by anticipating the actions of other drivers that I have been able to avoid problems on the road.

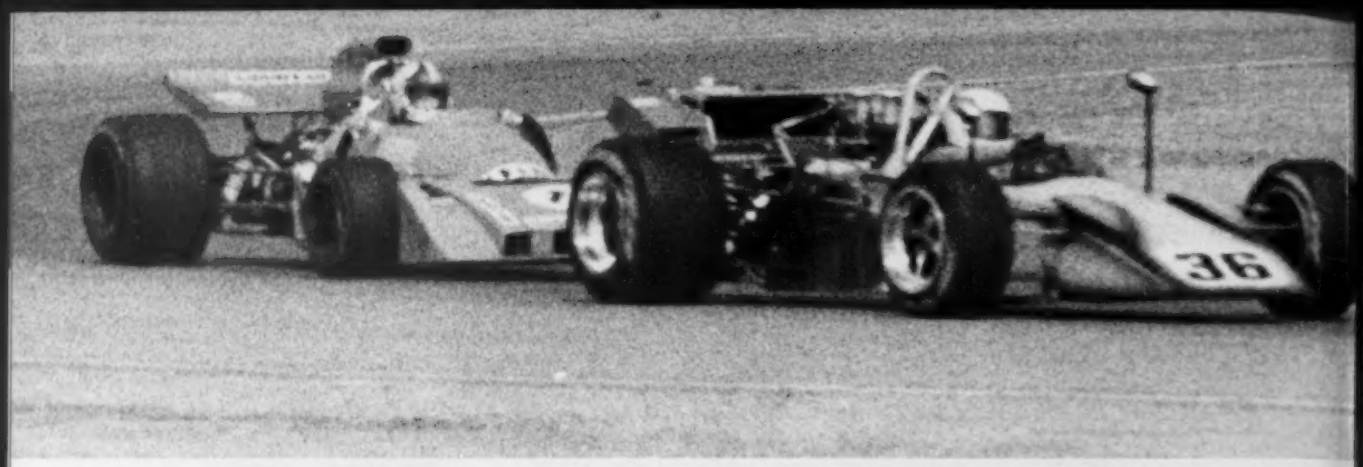
DRIVER: *Are there any racing techniques that should not be employed on the streets and highways?*

POSEY: Definitely. Techniques such as drafting [tailgating], sliding, and late braking have absolutely no place on the highway. And, in the mid-'50s, it was very fashionable for racing drivers to say that a lot of times you can accelerate through a bad situation on the road safer than you can brake.

DRIVER: *Some are still saying this.*

POSEY: Well, that's ridiculous. There are a few situations which call for such action; but in the vast majority of cases, the more you get that car slowed down, the better off you are. Here's my point. If you're wearing your seat belt and shoulder harness—and it's *absolutely stupid* not to . . . there's no other way to phrase what it is to drive around without this safety gear on—you can

continued



continued

oro talk

(above)
Some racing practices, such as the anticipation of other drivers' actions, should be applied to highway driving as well. The practice shown here has no application on the highway, but many drivers employ it anyway. Consequently, "following too closely" is a major accident cause.

"I'd be very humiliated if I had an accident."

survive almost anything at speeds below 35 mph. Now, if you're close to the posted speed limit on the highway, you shouldn't be going more than 65 or 70 mph. At this speed, it takes only a brief jab on the brakes in a difficult situation to bring you down into the safety zone. And here is where anticipation enters the picture again, for by thinking ahead you will retain the capability of reaching that safety zone.

DRIVER: *In the Air Force and Navy we lose between 1,000 and 1,100 people a year in traffic accidents. A large percentage of these accidents are due to drinking and driving. What are your views on this subject?*

POSEY: Well, it's absolutely foolish to drive when you're drunk. At the same time, I feel it is unrealistic to say *never* drive after you've been drinking. That's optimum. Never drive when you're tired, never drive when you don't know the road . . . there will come a lot of times when your safety factor is down for one reason or another. If you're not up to form, and you feel you've got to drive somewhere, then you must make compensatory adjustments. Your concentration on the job at hand, which may be only 50 percent on a good day, will now have to be 100 percent. Your reactions are going to be slower, so it's imperative that you drive slower. And the distance you stay from other vehicles will have to be greater. If you're prepared to dial in these equalizing factors, then you can drive with far more safety than people generally do. This is just simple logic, and you don't need an expert to tell you these things. But it's logic a great many people fail to apply.

DRIVER: *Many of our guys enjoy working on their own cars. Do you have any words for these people?*

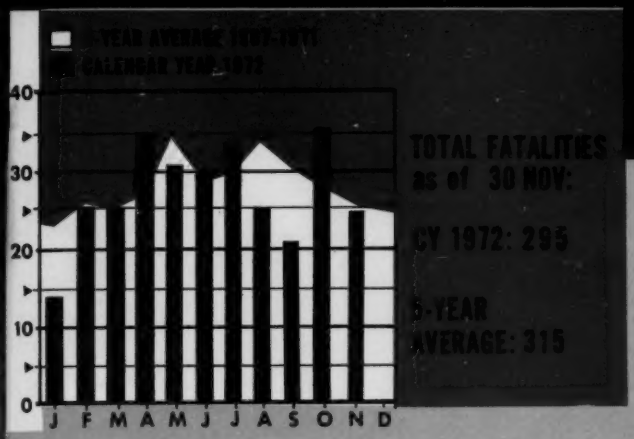
POSEY: Well, you know, one of the real temptations is to put in this cam or that high-riser, because it's the hot thing. A car is a complex combination of components, and the men in Detroit don't engineer these things up as a package without first doing some pretty good thinking. To make a modification just because it appears to work on so-and-so's car is frequently a bad mistake. Really, the best things for a stock automobile are simply to maintain it well and to insure that everything is working as it was designed to work.

DRIVER: *Do you have any advice for people who are about to buy a car?*

POSEY: I just bought a new station wagon, and this automobile is going to end up like my old one, virtually outperforming every sports car on the road. It has the stiffest suspension I could order. It has the trailer towing package which includes a bigger radiator and a lot of other worthwhile heavy-duty items. And it has the biggest engine for that class . . . but nothing tricky, because the most important thing for me on the street is a reliable car. I don't want to jeopardize that reliability for anything.

DRIVER: *Do you have any final thoughts on how our readers can improve their driving?*

POSEY: Well, I think we racers enjoy an advantage, in that we have a pride in our ability that comes from driving on the track. I, for one, want this pride to carry over to my driving on the highway. It would help immensely if people just had the desire to drive well. You either want this or you don't. If you aren't interested in being a good driver, you're not going to be one. You know, it's sort of a shame; but in some circles, a car accident is not regarded as a humiliating thing. I'd be very humiliated if I had an accident. I really would be, and that's one of the main reasons I try to avoid having accidents. ●



A monthly recap of selected accidents—presented solely in the hope some will benefit from the unfortunate experiences of others

HOW GOES IT?

Rank: Sgt
Age: 24
Type vehicle: 1972 Volkswagen van

The Sgt stopped the VW at a three-track crossing to await passage of a west-bound train at 0235. The night was clear and dry, with 10-mile visibility.

As the caboose cleared the roadway, the Sgt zigzagged around the horizontal cross-arms while the red lights were still flashing and the warning bells ringing. Both the driver and his Airman passenger were killed by an *east*-bound train. Installed seat belts and shoulder harnesses were not used, but would probably not have prevented the fatalities.

Cause:
Driving onto tracks in face of oncoming train.

Probable contributing factor:
Disregarding RR crossing warning devices, possibly in the belief they were still being activated by the west-bound train.

Rank: A1C
Age: 19
Type vehicle: 1967 Honda motorcycle (cc unk)

The A1C, riding in the right-hand lane of a six-lane divided freeway, overtook a tank truck and trailer and moved into the Nr 2 lane. Drawing abreast of the truck's front, the motorcycle veered suddenly into the truck's left front wheel.

The rider was thrown under the truck, and the right rear duals crushed his helmeted head. A patrolman stated he had observed the rider bending over as though looking at something just before the bike veered into the truck.

Probable cause:
Loss of control.

Probable contributing factor:
Distraction resulting in moment of inattention.

Rank: TSgt
Age: 32
Type vehicle: 1970 BMW 2002 2-door

The TSgt drank beer and whiskey until 0100, then drove his car into a guidepost while speeding 90 mph in a 37-mph zone. The car flipped three times, and he was thrown out and killed. Installed shoulder harness and seat belt were not in use.

Probable cause:
Impaired thinking capacity.

Probable contributing factors:
High speed and darkness.

Rank: A1C
Age: 21
Type vehicle: 1971 Honda motorcycle 350 cc

The A1C was riding south at 70 mph in a 65-mph zone when a 21-knot, west/northwest wind gusted to 30 knots. The rider leaned into the wind to gain stability, but the bike departed the road when the wind suddenly calmed. The out-of-control machine struck an approach embankment, and the rider was killed after being thrown 155 feet from the point of impact.

Probable cause:
Loss of control.

Probable contributing factors:
Sudden change in wind strength caught rider off balance; excessive speed.

Rank: Sgt
Age: 20
Type vehicle: Automobile (type unk)

The Sgt was driving at excessive speed on a dirt/gravel road when the right rear tire blew. The car left the road and flipped over.

The Sgt was ejected and killed when the car landed on him, and his three civilian passengers were seriously injured. No seat belts were in use.

Probable cause:
Loss of control.

Probable contributing factors:
Tire blow-out; mismatched tires, an oval slick and a regular tire; driving too fast for road condition; driver's control limited by not being buckled in.

Rank: Capt
Age: 27
Type vehicle: 1969 Honda motorcycle 350 cc

The Capt rode a borrowed motorcycle at a high rate of speed in a 25-mph zone. He lost control on a curve, braked and skidded, and crashed into the rear of a Honda 50.

The Capt was thrown 18 feet into the air and died later in a hospital. The driver of the smaller Honda received minor injuries.

Probable cause:
Loss of control.

Probable contributing factors:
Unfamiliarity with borrowed machine; excessive speed.

Like all entrants, Mike's kart must pass a thorough tech inspection.

Karting has room for the one-man crew (above), or the full team operation (below).

by WILLIAM H. PIERCE

JUST FOR THE fun OF IT

Karting combines safety and speed in racing

Airman Mike Purcell, 49th CE Squadron, Holloman AFB, New Mexico, has been racing for the past 12 years. And he's got the trophies to prove it. But before anyone starts wondering if he's the oldest one-striper in the USAF, he started when he was only 11 years old.

Along with thousands of other young and not-so-young Americans, Mike is a kart racer. Prior to joining the Air Force some 6 months ago, he spent most of his spring, summer, and fall weekends traveling through the Midwest, running in kart races. He still races when possible and, as karting is probably the purest form of amateur racing, Mike collects trophies instead of cash.

So—you can't win 'em all."

A Kart (originally called "go-kart") is a miniature racing car powered by a single engine or twin two-cycle engines, driven only on kart-racing tracks. (There are bigger and fancier long-distance karts called Enduros, and a special hot-shot class, FKE, but this story deals only with what is called the "Sprint" series.)

Mike Purcell and nearly 300 other karters came to the Adams Kart Track in Riverside, California, to run in the International Kart Foundation's (IKF) Southwestern Winternationals, one of karting's biggest race meetings.

The IKF has always been very big for safety in racing. Kart construction is strictly regulated and no Mickey Mouse contraptions can even get onto a track, let alone pass the thorough technical inspections. Drivers must wear full-coverage crash helmets, goggles or visors, heavy leather or vinyl jackets, and full-length trousers. Although literally anybody with a kart can join up and race, there's a tight licensing program set up to make sure that nobody gets into driving over his head.

Karting can be a family affair, which may account for its booming popularity. Boys (and girls) can begin at 9 years of age in the Rookie Stock Class. DRIVER isn't going to try and explain the 27-odd classes of driver ages and engine classes. We'll just say that driver age classes are 9 to 12, 12 to 15, over 16, over 18, and over 21. The two-cycle lawnmower-type engines range from Rookie Stock (less than 5 cubic-inch displacement and costing under $100) to C Open engines in the 8.25 to 16.5 cid range with no price limit.

A kart is really an open-wheeled platform, with a front bumper, steering wheel, driver's seat with side rails, 5-quart fuel tank, and the engine (or engines) mounted next to the rear wheels. They can have no longer than a 50-inch wheelbase, be no wider than 40 inches,

continued

(left)
Self-designed kart stand makes for easier maintenance.

and no higher than 26 inches from the ground. Maximum ground clearance is *2 inches*, which means an extraordinarily low center of gravity; a big safety plus, in that they are just about impossible to flip over. There are brake and throttle pedals and, although drum (rear-wheel-only) brakes are permissible, most karts run with four-wheel discs. In fact, discs came to karts a long time before they started appearing on street vehicles. There's no restriction on types of fuels; karts run on gasoline, methanol, alcohol, nitro concentrate, castor oil, or secret mixtures of any and all of them.

(near right)
Junior drivers have plenty of chances to learn their way around a kart.

(center, right)
Electric timer is used for qualifying trials and timing races.

(far right)
On the grid Mike slips into the required heavy jacket. Full-length trousers, helmet, and visor or goggles are also mandatory.

"Gentlemen (and ladies), start your engines!"

"We have a start!"

Since karts used for track racing are not equipped with a starter or battery, they are fired up by means of a "slave" battery, usually mounted on a portable, two-wheeled truck. Once the engine turns over and the rpm builds up, a centrifugal clutch releases and the kart takes off. Idling is pretty much a question of skillfully maneuvering the carbureter needle—with a solid foot on the brakes.

AN ECONOMICAL HOBBY

You can get into kart racing for as little as $250 for a used kart and engine. Admittedly, though, you probably won't win many races. Experts agree on starting with a (good) used kart, but they strongly advise a new engine. "Stock" or "Box Stock" engines less than 6.1 cid come straight from the container ($120 or less) to the kart. They can't be altered or modified, except for over-boring as the engine wears. At this level it's really only a question of taking care of your stock equipment. In the "Stock Appearing" or "Open" classes, the sky is pretty much the limit. Precision-built clutches, pistons, sprockets, exhaust systems, and such can turn a housebroken kart into a baby bomb.

A race schedule is a miniature version of Ontario or Riverside. Karts must pass a strict tech inspection. An experienced karter checks for length, height, and width compliance; safety wire on the steering; brake, throttle, and wheel bolts; fuel, brake, and master cylinder lines; broken welds, and general appearance.

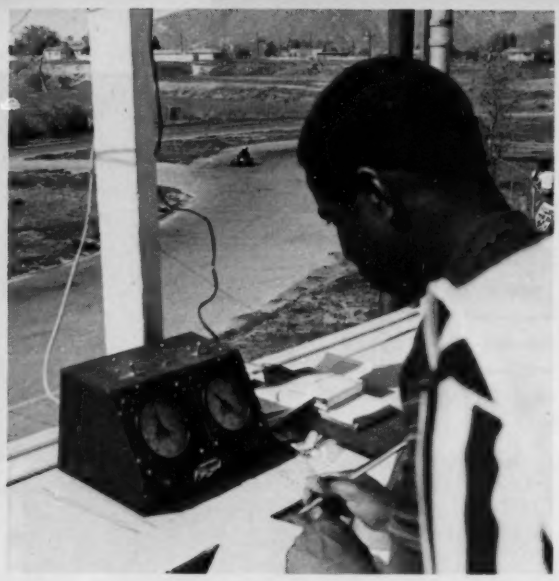
There are carefully regulated practice sessions, individual qualification runs, and a drivers' meeting before the races begin. Most races are three series of 8-to-10 lap runs for 30 to 40 karts. Points are awarded for 1st-, 2d-, and 3d-place finishes, and total points determine the various class winners. Combined point winners in the Nationals qualify for the yearly Grand Nationals, from which come the Grand Champions.

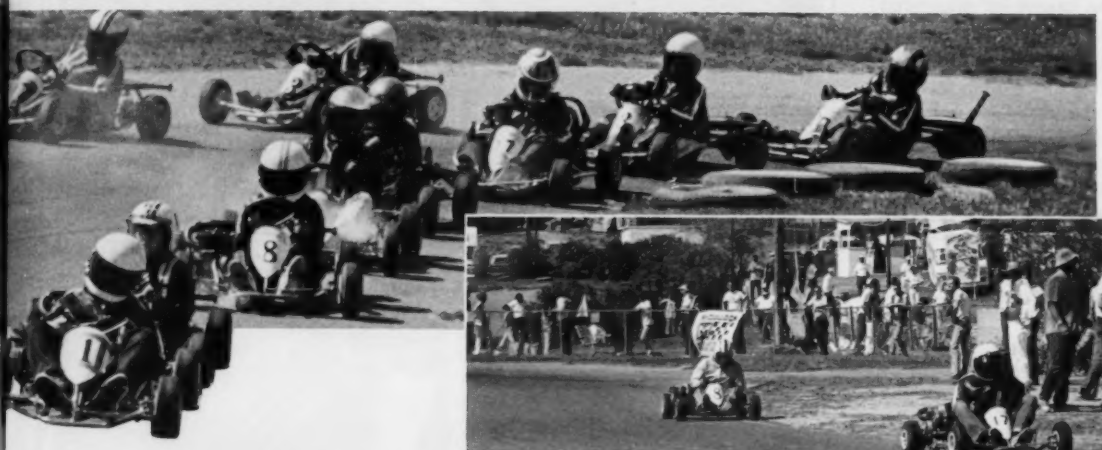
Long-time karters are particularly proud of the safety lessons they're passing on to the Junior Class drivers.

"They're learning almost all there is to learn about driving a car in the ideal atmosphere," one father told DRIVER. "They'll have their share of fast driving, spins, excitement, the whole bag—under controlled conditions. By the time they're old enough for a driver's license, they will have learned to take care of themselves and watch out for the other guy."

"Fact is," he said thoughtfully, "I think karting is producing a whole generation of careful, sensible drivers."

Anyone for karting? ●





(above)
Mike had trouble building up speed coming out of the turns. Carburetor problems limited him to a 12th-place finish.

(left)
Action in the esses (kart style).

(below)
Now, what would A. J. say?

MOTOR SPORTS CLUB NEWS

Luke AFB, Arizona

We thought you might be interested in the attached photo of Miss Davis who has graciously consented to add a little spice to our campaign through education here at Luke.

We have established an excellent motorcycle operators safety course for all riders who have their machines registered on base. The course consists of 8 hours of outstanding classroom instruction and includes participation by the Phoenix City Police Motorcycle Division.

In addition to classroom instruction, each rider participates in 4 hours of practical paved-surface and off-the-road riding.

Thank you for your assistance, and for your outstanding DRIVER magazine.

SSgt Michael C. Vella
Wing Ground Safety
58 Tac Ftr Wg (SEG)
Luke AFB AZ 85309

(Photo by A1C George Mathews, Jr., Luke AFB AZ)

Miss Ellen Davis ("Miss Cycle Safety" at Luke AFB, Arizona) is concerned with the alarming rate of motorcycle accidents Servicewide. Lt Col Ronald A. Berdoy, Wing Chief of Safety, wrote: "We are continuing to promote interest in forming and developing a base-sponsored motorcycle club. Meanwhile, in order to develop safe, two-wheel defensive-driving habits, we are conducting a first-class course in motorcycle safety. In the near future we will be interested in publicizing the results of our efforts in DRIVER magazine. Miss Davis is very active here at Luke in promoting motorcycle safety, and we feel honored that she will be able to expand her efforts through your medium."

Miss Davis offers the following advice:

"There are some pretty tough hazards in motorcycling. They can be overcome, but it takes a lot more than just luck to get by—like common sense and proper training, as well as knowledge of your bike, other people, and yourself.

"If your base has a motorcycle course or club, or both, you would do well to attend the course and/or join the club and support it. If not, help get one or both started. Get the odds on your side.

"We have an excellent Motorcycle Safety Operators Course here at Luke. Feel free to call on us for more information. The address is Hq 58 Tac Ftr Wg (WG/SE), Luke AFB AZ 85309."

Zweibrucken AB, Germany

The 2143d Communications Squadron at Zweibrucken Air Base recently formed an automobile club which already has 41 members.

The goals of the "European Travelers" club are to assist individuals in complying with vehicle ownership and driver responsibilities, to provide information about automobiles and local driving/traffic problems and laws, and to emphasize other problems and hazards generated by operation of privately owned motor vehicles.

Safety rap sessions, however, are not the only thing the club has going. Club members will attend road rallies, auto shows, and auto races, and will sponsor picnics and other social activities.

Once a member has completed 12 months without receiving a traffic citation or being involved in an avoidable accident, he will become an "Honor Member."

Honor Members will receive a 3-day pass, a National Safety Council Award, a Ground Safety Achievement Award, exemption from squadron details for 30 days, and a 30-day reserved parking space in the squadron area.

Hopefully, all club members will emerge as enviable masters of the art of defensive driving, and I can report later the drastic effect this training and association has had on the unit's accident/citation rate.

SSgt Jerald G. Legins
Information Representative
2143 Comm Sq, 86 Tac Wg
Zweibrucken AB, Germany

Polizeihauptmeister Koch, Chief of Traffic Planning and Accident Prevention for the City of Zweibrucken, explains the German traffic information system to attractive Sgt Mary A. Wilcox, member of the 2143d Com Squadron's "European Travelers" club.

RAF Croughton, England

MSgt William A. Russell, RAF Croughton's Formula Ford man, is returning stateside after 4 years of racing on British tracks. The former member of the 2130th Communications Squadron (AFCS) has participated in 145 races on the well-known Silverstone, Mallory Park, Truxton, and Snetterton tracks. The Sergeant has come close to winning, once missing first place by 2/10 of a second. This was no mean accomplishment, as the Formula Ford Class is probably the most popular single-seater racing class in Europe and includes many excellent drivers.

The multi-talented NCO not only performed the maintenance on his race car, but acted as his own spon-

continued

MSgt Russell explains the instrument panel of his Alexis Mark 18 Formula Ford racer to SSgt Clifford Givins, 2130-th Comm Sq Ground Safety NCO.

sor and payed all fees and expenses.

Sergeant Russell has the greatest respect for all the safety devices fostered by organized racing over the years. He credits his use of a full lap and shoulder harness with saving his life in one accident in which his car left the track at 125 mph.

OI, 2130 Comm Sq (AFCS)
RAF Croughton
Northhamptonshire, England

Davis-Monthan AFB, Arizona

Davis-Monthan AFB, opened its gates last September to civilian sports car buffs in southern Arizona to join with D-M airmen in a sports car slalom.

With the safety inspections completed, the races started at 0800 under the warm, morning Arizona sun. The 300-yard course threaded its way through rubber pylons set up on two runways. Driver skill was the name of the game, with a missed gate disqualifying a run and hitting a pylon adding 1 second to the driver's time.

There was a wide variety of entries, ranging from pick-up trucks to VWs to Mini Coopers and Triumphs. Five heats were run in two divisions, modified and prepared, and the event included a sedan division.

The fastest time of the day, 58.076 seconds, was turned in by SSgt Russ Skillman, 803d Security Police Squadron, who drove a Mini Cooper in the "A" modified class.

A trophy was awarded to the driver with the fastest time in each class, and dash plaques were given to all participants. Other awards included sports jackets, engine tuneups, and other automotive prizes contributed by Tucson businessmen.

Sergeant Skillman, Secretary of the Tucson Chapter, Mini Owners of America, said, "We have been trying to get a race of this type at Davis-Monthan for quite awhile," and added, "The help we received from our Base Commander, as well as from the Director of Special Services, Safety personnel, and the Base Legal Office, assured the success of the race."

The enthusiastic response from both military and civilian drivers and backers reflected harmonious and desirable relations with the civilian community. Hopes are high for a whole series of jointly sponsored military/civilian sports car competitions.

A1C Jim Williams
803 Cmbt Spt Gp/OI (SAC)
Davis-Monthan AFB AZ 85707

Yokota AB, Japan —Technical Sergeant John Grinsel, Yokota's Chief Motorcycle Instructor, demonstrates important routine maintenance using a student's cycle. The Sergeant is a believer in the value of teaching riding techniques plus methods of dealing with traffic, in addition to the importance of keeping a cycle in top mechanical shape. His course consists of MINIMUM talk and MAXIMUM riding.

(U.S. Air Force Photo by Capt Bob Carruthers)

ANSWER TO "WHAT SHOULD YOU DO?" (See back cover before reading)

The best answer is A. "Honk, turn your lights on, pump your brakes and medium brake to slow down."

You must keep moving because the cars behind you may not stop. At the same time, you have to slow down because the cars ahead will be slowing down.

In this situation the critical action is to communicate your position to the other drivers. Honking your horn, turning your lights on, and pumping your brakes, are all ways of communicating. By pumping your brakes you keep the brake lights flashing on and off. Not only do the flashing lights call attention to your car, but the brake lights are usually brighter than the tail lights.

If you brake suddenly, you may skid and/or get rear-ended; if you pull off the road and stop, the car behind you may follow your lights. ●

About Miss DRIVER (see page 5)

Cynthia Kirk is an attractive blue-eyed blond from Highland, California. Her favorite activities include water skiing, arts and crafts, swimming, embroidery, and reading.

Cynthia has entered several beauty contests, and was a first runner-up in the Norton AFB Sweetheart Contest. Her future hopes are rather unusual for a girl. Cynthia hopes eventually to open up a business as a private detective! ●

DON'T OVERINFLATE TIRES ON RECREATIONAL VEHICLES

(Reprinted courtesy The Journal of Traffic Safety Education)

Many recreational vehicle owners are making the mistake of overinflating their tires to compensate for heavy loads, a recent survey shows.

The proper solution is to either lighten the load or use tires with a heavier load range, says the Tire Industry Safety Council.

The results of an inspection last year, of 6,465 recreational vehicle tires by the Wisconsin Division of Motor Vehices, show more than 50 percent were overinflated and nearly 15 percent overloaded.

"Overinflation is no substitute for the right tires," Council Chairman Ross R. Ormsby explained. "Too much air pressure can cause internal and external damage, or even sudden disablement."

Wisconsin officials concluded a large majority of the drivers of the vehicles checked had no idea of the weight they were carrying or the proper air pressure for their tires. According to the survey, less than one-tenth of one percent of the tires inspected were found to be underinflated. The survey included 1,545 car and truck towing vehicles and attached boat, tent, and all-purpose trailers, as well as mobile homes and truck-mounted campers.

Safety experts estimate nearly one-fifth of the recreational vehicles and trailers are loaded beyond their rated carrying capacity, and that many more are improperly loaded.

The Council has available a free Recreational Vehicle Consumer Tire Guide containing information on the care and maintenance of recreational vehicle tires, and proper load and inflation tables. A Recreational Vehicle Tire Safety and Mileage Kit is also offered by the Council, at cost, $3.50. The kit contains a heavy-duty air pressure gage calibrated to 120 pounds, a tread-depth gage, and four metal valve caps, plus the Guide.

The Guide and/or the Kit may be obtained by writing to "Recreation," Box 726, New York, NY 10010. ●

continued from page 2

DOUBLE CLUTCH

determination to respond in a given way to an object or a situation.

"Traffic safety happens to be one of those things.

"How many people do you know who harbor the feeling that traffic laws are to do something to them instead of for them?

"The simplest and most fundamental rules of the road are given a hard time a great deal of the time. The record shows that more than 80 percent of the fatalities on our highways are attributable to improper driving. . . .

"Research has revealed that out there on the highway,

82% of the drivers involved in automobile accidents blame the other guy;

80% consider themselves good or excellent drivers—only one out of a hundred admits that he is a poor driver;

only 5% think their driving can be improved through a refresher course;

and 53% feel there is nothing they can do to avoid another accident.

"Obviously, the problem is not simply the psychology of safe behavior—it is the psychology of human behavior generally.

". . . How do we convince those who need to be convinced that accidents are hardly accidental . . . that they are, for the most part, personally caused; that they are therefore controllable; and, finally, that every individual has a moral and social responsibility to prevent accidents to himself and to others, and to cooperate with others to this end?

"Do we give up?

"Of course not. . . ."

So, we're going to keep on trying—even if we do have to scrub an occasional copy (such as happened to Sep '72 DRIVER)* when printing funds get scarce—and hope our readers keep on reading (and heeding), and that our contributors keep on contributing. ●

** We stated in Aug '72 DRIVER that the Sep and Oct issues would be scrubbed. We received a last-minute windfall, however, and were able to publish the Oct '72 issue.*

A lot of our military people will be hitting the roads soon, for home or other special holiday spots. Many will drive far, fast and hard (although DRIVER hopes *you* won't overdo it).

In any event, you'd best have your machine checked out before you leave; you'll be battling winter weather and road conditions, holiday traffic, and the strain of hard driving. An accident or breakdown could ruin your vacation as well as your budget.

But, instead of the usual checkup, how about getting with the "now generation" by taking your car to an automobile diagnostic center for a thorough "scientific" checkout?

Perhaps you like to do your own work, or have a favorite mechanic or buddy who knows cars forward and backward—but, can you or your buddy *really* tell the condition of your brakes? How many of you can tell if your car's front-end is slightly out-of-alignment, or the wheels a little out-of-balance? How about those obscure little matters which, if spotted now, could be corrected before becoming big, expensive problems . . . think you can detect all of these?

SUPERTHOROUGHNESS

The scientific test center DRIVER recently visited can do all these things and more, quite efficiently. In fact, with the help of $100,000 worth of equipment and highly trained technicians, the center tests 212 critical safety, performance, and comfort components in about an hour, for less than 10 dollars.

We don't mean to put down either you or your mechanic friend, but there just isn't any way anyone can do as thorough a checkout as a test center; certainly not for that price. And, even the best mechanic can't test or analyze some parts and functions of an engine without the sophisticated electronic equipment used in a test center.

After looking over the diagnostic print-out sheet on page 25—anyone still doubting the completeness of a diagnostic checkup or the validity of the diagnostic concept should consider recent developments in automotive engineering and diagnostics. These developments have made such services almost essential on newer cars, and worthy of serious consideration by all drivers.

PRECISION NEEDED

Precise engine settings and adjustments have become critical for maintaining performance and emission standards on today's super-complex cars (new-car owners soon learn the importance of exact engine tune for keeping a modern emission-control engine running smoothly). In order to deal with this "precision" requirement, the auto industry has adopted the use of space-age electronic analysis equipment.

- Volkswagen was first to acknowledge the necessity of sophisticated electronic equipment in diagnosing and maintaining today's cars. All '72 and '73 VWs have circuits leading into a single-socket outlet. These circuits measure 25 elements of the car's performance. A specially designed computer takes information from the socket outlet and produces a read-out to be analyzed by the mechanic;
- BMW is now introducing a similar plug-in information socket for its cars;
- Ford Motor Co is also introducing electronic analysis equipment to take complicated diagnosis out of the mechanic's hands;
- and, most significant, the U.S. Department of Transportation has become so convinced of the value of electronic diagnosis, it wants standardized plug-in equipment for all new cars.

CENTERS AVAILABLE

Everyone can't have a new car with a plug-in information socket, but almost any interested driver should be able to locate a general diagnostic center. Diagnostic services have become so popular, increasing numbers of auto shops are including diagnostic test equipment and complete test centers as standard equipment.

The diagnostic center that DRIVER visited is operated in a shopping center as part of the auto complex of a popular department store. It has all the essential mechanical, electronic, and computerized equipment for testing most vehicles under simulated road conditions. This test center also has equipment for testing the brake system and braking efficiency at actual highway speeds; an important service which most of the earlier diagnostic systems lacked. This feature should be a deciding factor when choosing a test center. If a center can't test braking efficiency at an actual speed of at least 60 mph, find another. Also, be sure the diagnosticians check front-end alignment as well as wheel balance, and have the equipment to do a complete electronic engine analysis.

COMPLETE INSPECTION

A diagnostic checkup, however, is not all electronic wizardry. The test begins when the car is turned over to trained technicians who quickly but thoroughly inspect general items such as safety belt mounts, turn signals, lights, and spare tire condition and air pressure.

Then the car goes up on the rack for a thorough inspection of most of the critical safety items such as tires, tie-rods, shocks, brake hoses, front-end condition and alignment, after which the wheels are removed, bearings inspected, and wheel balance checked. While on the rack, nearly every component of the steering and front-end, transmission and drive train, and brake and exhaust systems is covered.

continued

Bill-of-

(left)
Diagnostic centers are basically an accumulation of scientific equipment which tests nearly every critical automotive part and system. They also feature comfortable glass-enclosed waiting rooms from which the customer can follow each step of the diagnostic action via dials and gages, flashing lights, and panels.

(left, below)
A highly trained diagnostician sets up the teleprinter before the test begins. The teleprinter records the condition of each automotive part as it is checked.

(below)
Not entirely electronic wizardry, the first stage of a diagnostic checkout is a visual inspection of general items such as lights, turn signals, spare tire condition and air pressure, and safety belt mounts.

Information is constantly fed into the teleprinter. The customer can watch the technicians from the waiting room and immediately see the results of their inspection on the teleprinter print-out.

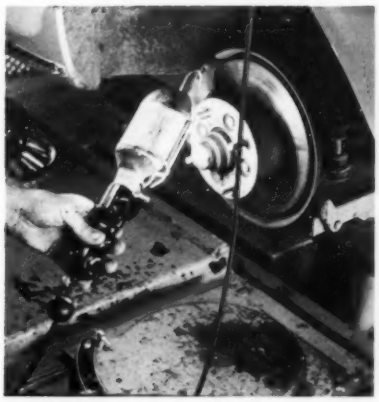
The inspection continues as the car goes up on the rack where the brake system, transmission, drive train, exhaust system, and other critical parts and functions are examined.

Front-end alignment and wheel balance are checked during the inspection.

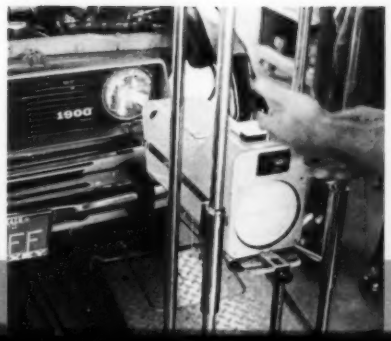
GIVE YOUR CAR

A CLEAN Health

DRIVER visits an automotive Diagnostic Center



Brakes and wheel bearings are also thoroughly inspected. Brake efficiency is checked later, during the performance stage.



(left)
Headlight aim and exhaust emission are part of the extensive inspection process that leaves very few items unchecked.

continued

GIVE YOUR CAR A CLEAN BILL-OF-HEALTH

Several problems are immediately pointed out to the owner. Front-end alignment, wheel balance, and shocks are some of the items frequently found defective.

ated at actual speeds under simulated highway conditions. Both front and rear brakes are checked for stopping power, fade, and wear conditions. The customer can see how his brakes shape up by watching the brake system panel in the waiting room. When choosing a test center, be sure it will test brake efficiency at actual speeds. Most new centers now have this important equipment.

scientifically and records the results on a special panel in the waiting room.

(left)
The most exciting part of a scientific checkup is the electronic engine analysis. A technician checks engine specifications before wiring in the sophisticated electronic analyzer. This space-age equipment shows exactly what engine parts are defective or need attention, and gives an instant carburetion analysis.

signed test rollers during the performance analysis. Conditions such as steep grades can be simulated to get an accurate analysis of how the engine performs on the highway.

conditions by watching the oscilloscope in the waiting room. Notice the speed-check dial to the right. Diagnosticians report the speedometer check has saved many people speeding tickets and the cost of the checkup.

The customer can watch all of the action from a comfortable glass-enclosed waiting room. A teleprinter in the waiting room constantly pours out the results of the technicians' inspections and analyses on the print-out sheet. From observation and the print-out information, the customer can immediately see what is being revealed about the condition of his machine at every step of the inspection.

PERFORMANCE TESTING

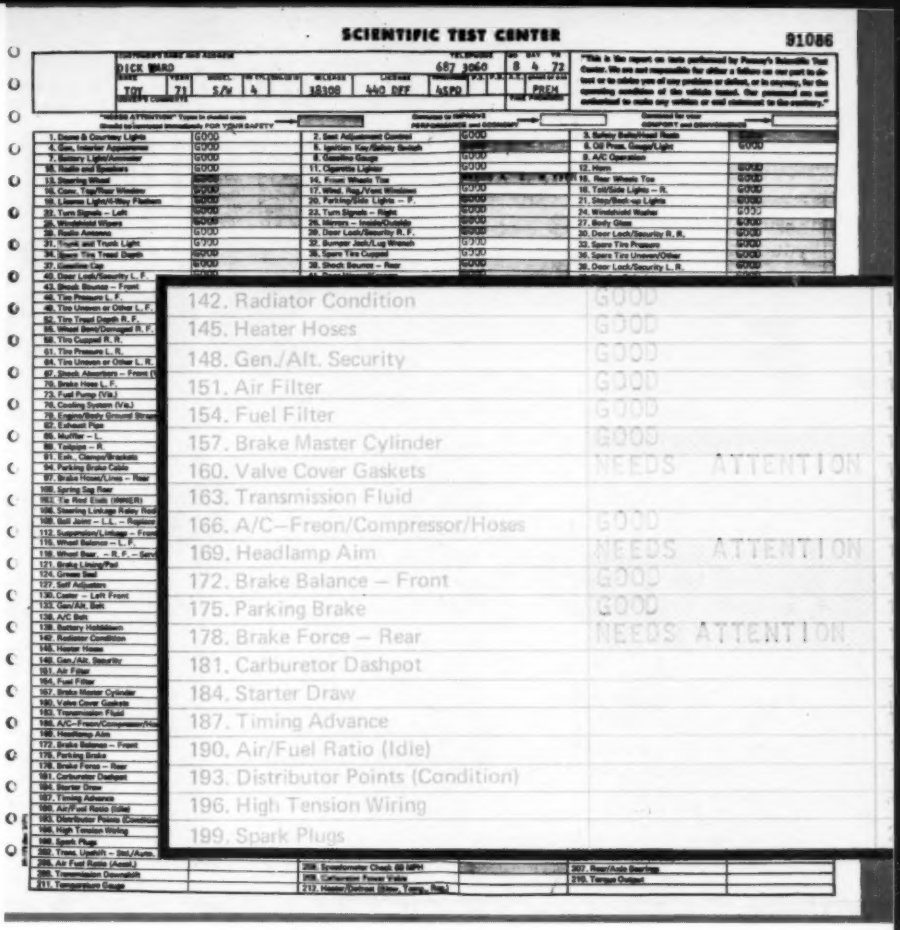
Next, the car is moved onto the performance testing facility. This is where things really get exciting for the observer, since he can monitor many of the performance tests by watching the gages and panels inside the waiting room.

BRAKES TESTED

Actual braking efficiency is tested by putting the car on a special set of rollers which allow it to be actually operated at highway speeds, and this facilitates a check of the speedometer as well. The latter, alone, may well prove to be worth more than the price of the entire diagnosis . . . by possibly saving the owner the cost of a speeding ticket.

PERFORMANCE RUNDOWN

The final stage of the test is a complete engine analysis. The engine is wired into a very sophisticated electronic engine analyzer, and a complete performance run-down is made. This not only tells whether the engine needs a complete tuneup or possibly just a new set of points, but analyzes every important part of the engine and fuel system.



Diagnostic print-out sheet

When the test is over, 212 critical safety, performance, and economy features have been thoroughly inspected and analyzed. The customer gets a full explanation of the test results and a copy of the teleprinted read-out. The diagnosticians emphasize the need to have safety problems taken care of immediately; but it is up to the customer to decide what to have repaired and where to have the job done.

TECHNICIAN'S TIPS

When the diagnosis is completed, a technician thoroughly explains the results appearing on the customer's copy of the print-out. The diagnosticians recommend having *safety* problems taken care of immediately. Most non-critical performance items can wait, they emphasize, but critical components such as brakes, tires, and shocks can't be neglected. The center is prepared to take care of any repairs, and will estimate the costs and guarantee the work. But, the customer is not pressured to have any of the work done at the center.

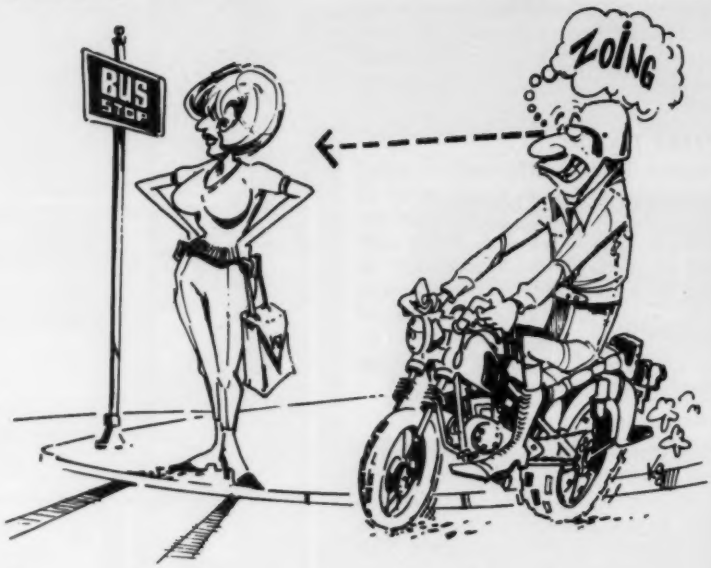
The diagnosticians pointed out to DRIVER that newer cars require less maintenance and at longer intervals, but still must have optimum maintenance to operate properly; also that preventive maintenance is the best way to stay ahead of costly car problems. A periodic top-to-bottom checkup at a diagnostic center is a good way to be sure that proper servicing and maintenance is being carried out. It also helps keep an eye on some components that frequently need replacement. According to the technicians, most people come in before the warranty expires, or before long trips, but some visit the diagnostic center regularly. This seems to be a very wise practice, considering the reasonable cost of a diagnostic checkup as compared to a less thorough and possibly more expensive checkout by a mechanic.

Because they offer an almost totally objective appraisal of a car's condition, diagnostic centers are increasing in popularity daily. DRIVER hopes every car owner will locate a fully equipped diagnostic center and give it a try. It takes only one visit to become convinced of the value of this service, and that this is one form of computerization that shouldn't be resisted. ●

Adapted from CYCLE WORLD. Permission from Bill Kaysing and the Parkhurst Publishing Co gratefully acknowledged

PART VI
INTELLIGENT MOTORCYCLING
Safety in the C

by Bill Kaysing



From zero to 60 miles per hour in less than 10 seconds is not uncommon for many popular makes of street machines, and top speeds in excess of 100 mph are possible with most of the larger bikes. But, like the bicycle, the motorcycle offers no protection to the rider.

Where does this leave the cycle rider? It leaves him *vulnerable*, that's what! He has the somewhat dubious advantage of being able to out-drag anything in sight, but with no surrounding protection. However, there are quite a few things going for the cyclist.

The majority of motorcyclists are young and in good health, with fast reflexes and excellent vision. Most cyclists ride solo; thus there are no conversations going on at the control center, no smoking, radio knob fiddling, or other distractions normally found in cars. And, the cycle rider has the advantage of excellent visibility with none of the blind spots inherent in autos.

The rider also has the advantages which accrue from modern cycle design. Most of these machines are light, swift, dependable, and highly maneuverable. Brakes, tires, and engines have been vastly improved; suspension systems have now become so advanced, they account for greater safety and comfort in both road riding and racing.

There are many other desirable attributes of the modern cycle, not the least of which is the delightful fact that it is a small target (but keep in mind the not-so-delightful fact a small "target" is also hard to see and avoid). Not only is a cycle hard to hit, but it can be operated in a minimum of space. This writer is able to write this series because he was riding a cycle instead of driving a car in several tight situations. So we see that if the cycle rider makes full use of all of his own inherent qualities, plus those of his machine, he (or she) can become a safe and confident motorcyclist. And, the practice of the three "A's" listed below will provide an even greater assurance of safety under all conditions! These are:

- Attention
- Anticipation
- Appropriate action

THE ATTENTIVE EYE

Only a couple of hundred years ago the attentive eye was not so important in traffic situations. Local sports tooled around on or behind low-compression donkeys, horses, camels, and the like, and thought they were really moving when they hit 10 mph. A rider could spend most of his time eyeing the landscape and pretty milkmaids. Not so today . . . even at a modest 40 mph, you move more than 59 feet in one second. It is important to know this, since at 40 mph it takes 44 feet to even react to a hazard. It requires another 88 feet to come to a stop with the best tires, brakes, and road surface. This produces a total of 132 feet or about 19 motorcycle lengths.

It is apparent, then, that attentiveness is your best insurance. What to watch for? Just about everything . . . from that thin trail of exhaust smoke coming from a parked car, to the driver coming toward you with his left wheels on the divider strip. The smoke from the pipe is your warning that the driver is sitting there with the engine running, debating whether to pull out into traffic now or later. Even without smoke to indicate a running engine, a person just sitting in a parked car should be warning enough that it might turn into the traffic stream.

Children playing at the side of the road should always rate your special attention. And don't forget to keep an attentive eye out for dogs, cats, and other unpredictable animals. Even if they don't race out in front of you, they may cause another vehicle to swerve into your path.

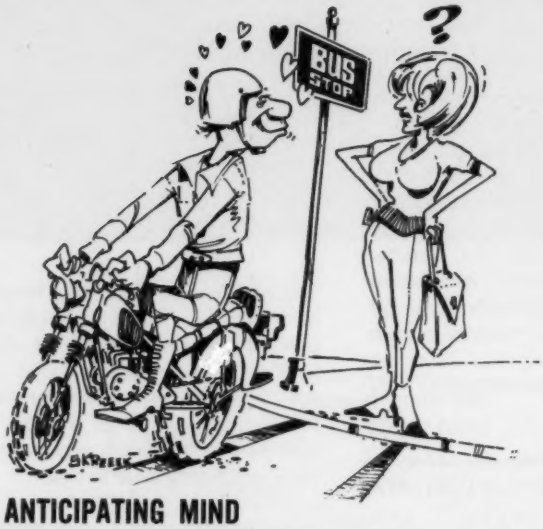
The car coming toward you with its left wheels on the divider strip should catch your eye immediately. Statistics indicate there are more than 150,000 accidents per year in the U.S. involving driving over the centerline. This type accident is particularly hard on cycle riders, so pull over, slow down — even get off the road if you suspect the oncoming driver is going to use your side, too.

the City

collisions occur, sometimes involving dozens of vehicles.

The unprotected cyclist is at a definite disadvantage in this type of chain-reaction destruction derby. In a car, you could merely hitch in your seat belt and prepare for the big crunch fore and aft. So, since prevention is the best cure, the solution is to continually anticipate the need for a sudden stop. . . if you are willing and able.

There is a saying that if you have had to stand on the brakes more than once in an entire year, you are not anticipating the possibility of something



THE ANTICIPATING MIND

Present-day vehicle speeds make it mandatory that cycle riders in heavy traffic anticipate potentially dangerous situations. Speed, by itself, causes only a few accidents. But high speed coupled with a lack of foresight is another story. Robert C. Eddy of the Massachusetts Institute of Technology once made a statement regarding this subject that should be made known to every cycle "driver" — and every car and bicycle jockey, for that matter:

"A small number of accidents occur through circumstances which the driver could not possibly foresee, but these are comparatively few. Beyond them the driver can, if he is willing, avoid all accidents."

This statement should give reassurance to all cyclists, as well as to the parents of our younger two-wheeled set.

A for-instance circumstance could follow the sudden flash of many stoplights up ahead on a busy city street. Something is amiss, and all vehicles are slowing down together. As the chain reaction grows there is less and less time for each vehicle to make its stop and, toward the rear, the time gets impossibly short. Then a series of rear-end blocking your immediate right-of-way. While it is true there should be a safe distance between you and the car ahead, it is even more important that you anticipate sudden stops, lane changes, or wrong-way drivers.

Perhaps someday there will be schools for training cycle riders, like the pilot schools that use flight simulators. Then a rider would be prepared when he encounters some of the modern road hazards. Until this fine day, however, a useful substitute is to plan what you would do under any given set of circumstances.

THE APPROPRIATE ACTION

Several years ago, a friend of mine was riding his powerful 40-inch twin on a heavily traveled through thoroughfare. He approached an intersection which had signs to stop all cross-traffic until the through street was clear. As he traveled the last few hundred feet, he noticed that a car to his right on the cross-street appeared to be maintaining speed, totally ignoring the stop sign.

The speeds of both cycle and car put them on a collision course at the dead center of the intersection. What to do? There were many cars directly behind the cycle, so a panic stop might have resulted in his being overrun. A high curb prevented his leaving the road. My bike-riding friend took a course of action that did save his life. . . and one that required a cool head and a steady hand. He simply cranked it on, and the speedy twin surged ahead and went through the intersection *ahead* of the offending car.

This maneuver would not have worked out so well with a badly tuned or underpowered bike, but the cycle involved had plenty of reserve horses. And there could have been a chain-reaction pile-up, if the approaching driver had decided to speed up at the same time. Perhaps the rider could have throttled back after darting into an opening in the left lane, or into the narrow gap between lanes, or between the cars and the curb. Or, if the following car hadn't been tailgating the bike too closely, the trapped cyclist might have been able to signal, slow, and turn right at the intersection. However, there's a lot of room for Monday-morning quarterbacking, and the guy on the bike at such a critical moment is the only one who can make the life-saving (or fatal) decision.

The moral here is to keep an attentive eye in focus and an anticipating brain tuned in, so as to be prepared to take the proper action to accommodate the unexpected. ●

(Editor's note: In our next issue, author Bill Kaysing gives an eye-opening account of the Three "A's" at work in the city.)

BACKFIRE

Address your letters to:
Editor
DRIVER Magazine
AFISC/SEDD
Norton AFB CA 92409

When I read "Intelligent Motorcycling," Aug DRIVER, it brought to mind an incident I witnessed here at MacDill.

I had to pull off to the side of the road to let a car towing a motorcycle pass, since the bike was weaving all over the road. A boy 9 or 10 years old was riding the bike with a rope tied to the handlebars, and his dad was holding the other end of the rope while trying to drive his car.

When I was later informed the stop sign down the street had been knocked down and mangled, I asked if it had been done by a car towing a motorcycle. It had been. Apparently the driver had looked back to see how his boy was doing on the bike. He not only ran the stop sign, he ran over it. Thankfully, no one was injured; but perhaps some of your

readers will read this and avoid making the mistake of trying to tow a motorcycle.

Sgt Kenneth S. Thacker
1st Civil Engineers (DEM)
MacDill AFB FL 33569

Could Dad have been one of our readers? We're happy to hear that only the sign was mangled!

Here's a tip for cyclists. You don't have to buy an expensive timing light for your bike. Any small transistor radio will do. Just off-tune it to where you get no station and turn the volume all the way up. When the points open you'll hear a "pop" from the radio.

Amn Mark O. Hamersly
PSC Box 4355
Beale AFB CA 95903

Thanks for the tip, Mark. This would be good for a cyclist to know if he has no timing light or gage.

First, a note to show my appreciation for such an informative publication. DRIVER is far out in a realistic way, and I dig realism. Keep up the good work.

A question. Is it advisable to install seat belts on side-facing seats of a step-van-type vehicle if these seats are bench type with no arm rests?

We had a mild controversy going on this subject with reference to the possibility of back injury resulting from a head-on or near head-on collision.

SSgt Joseph S. Sweetapple
3380 AM Sq
Keesler AFB MS 39534

Our Life Sciences people feel that installing seat belts for side-facing passengers is indeed advisable. Their rationale indicates the probability of injury while riding unrestrained is greater in any impact, and the National Highway Traffic Safety Administration agrees wholeheartedly. Life Sciences studies report restrained passengers as having withstood forces as high as 9 Gs in similar situations without ill effects.

I don't normally write to editors of magazines, but in this case I feel somewhat obligated.

I have probably, at one time or another, subscribed to just about every cycle and car magazine in print. But I felt none of them were worthy of continued subscription—until I found DRIVER. You have something the others don't have: safety tips, technical advice and articles, and preventive maintenance.

I have subscribed to DRIVER, plus am requesting back copies. I and others feel your magazine is the best and most informative magazine covering motor vehicles, two-wheeled and four-wheeled. Keep up the good work, especially in the technical field.

Seaman Terry L. Falls
Box 23, FicPacFac
FPO San Francisco 96654

We're glad to hear the Navy troops have accepted DRIVER.

Reference "Complete Ignition Tune-up," Aug DRIVER, here's a tip for all you tuners of GM V-8 automobiles.

When you install a new set of points and get ready to set the gap (or dwell angle, if you prefer), don't get hung up for lack of a dwell meter or because you don't know the point gap spec. Just install the points out of the box and have your buddy spin her over while you watch to see if the points do open. Then lock down the rotor and cap and fire her up. Let it warm up some, then stick your allen wrench into the adjustment screw behind the little silver door on the distributor cap, and turn it slowly clockwise until the engine misses or quits. Then back it off (counterclockwise) half a turn . . . that's it. Set your ignition timing after you have adjusted the points, NOT before.

MSgt Albert R. Griffiths
206 Stephan St
Fairfield CA 94533

Thanks, Sarge. You and Airman Hamersly should team up.

The importance of turning headlights on at dusk or during periods of restricted visibility should be stressed in DRIVER magazine. One driver who was *not* responsible for causing the accident failed to win his court suit, simply because it was proved his car's headlights were not on!

During another convincing incident, I braked to a stop where the off-ramp intersected the road running under the freeway. My wife cried, "Look out!" when I started to pull out in a left turn. I made a panic stop to avoid being rammed by a sports car. I backed off and asked, "Well, now, just where did THAT come from? I know darn well I didn't see any traffic coming!"

I finally got the whole thing sorted out when my wife said she'd seen the same car pass us on the freeway, traveling in the opposite direction. Headlights weren't really needed on the higher elevation of the freeway. But, when he drove down off the ramp and turned into the underpass, his car's color blended perfectly with the shady background.

I'm sure I would have seen the sports car, had its lights been on. And, as my wife suggested, he might have seen my car in time to slow if my car's lights had been on.

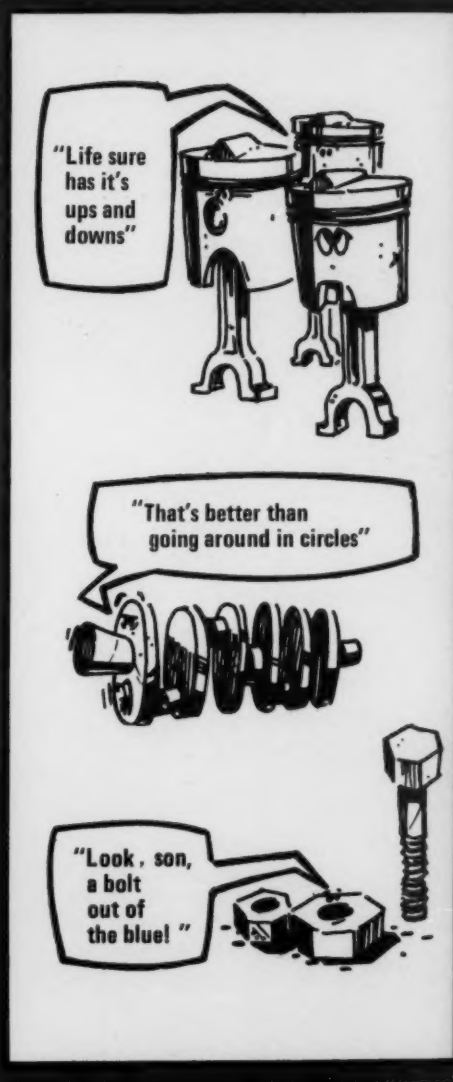
James A. Talbot
Col, USAF (Ret)

Right on, Colonel! It has been stressed.

☆U.S. GOVERNMENT PRINTING OFFICE: 1972—789-412/3

TUNEUP
AT LAST WE HAVE LOCATED THE WORLDS' FIRST BIO-DEGRADABLE AUTOMOBILE

IF HE MISSES IT THIS TIME, CALL THE HIGHWAY PATROL .....!!


"Life sure has it's ups and downs"
"That's better than going around in circles"
"Look, son, a bolt out of the blue!"

What should you do ??????????

You're on a heavily traveled high-speed highway, going 65 miles an hour. The weather seems good, but suddenly you find yourself in a dense blanket of fog. You have very poor visibility and cannot see the cars ahead or behind you, although you know they are there. What should you do?

☐ A Honk, turn your lights on, pump your brakes, and medium brake to slow down.

☐ B Brake down, turn your lights on, and pull off the road.

ANSWER ON PAGE 21